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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. 1. *Operations on the Rectum and Anus for Malformations, Laceration of the Sphincter, Hypertrophy of the Sphincter from Spasmodic Action, Constriction, and Ulceration of the Rectum and Colon.* By W. PARKER, M.D., Professor of Surgery in the College of Physicians and Surgeons, New York.

CONGENITAL malformations of the rectum and anus claim the especial attention of the practitioner; 1st, because of their frequency; 2nd, the necessity of prompt interference; and 3d, the ill success of the various operations undertaken for their relief. Of the frequency with which these cases occur we have no accurate means of judging except from personal observation. It is sufficient, however, to know that they are liable to occur in the practice of any physician, and that they require early recognition and prompt attention. Not that the life of the patient is placed in immediate jeopardy if relief is not given at once, for it is a fact that the little sufferer will often live for weeks and indeed months without having the bowels evacuated by the natural channel. But such cases are exceptional and do not serve as guides in practice. The success of the various operations which have been

undertaken for the cure of these malformations is truly discouraging. Amussat denies that they ever succeed, and it is well known that Mr. Brodie has refused to operate, preferring to leave the case to nature. Operative surgery, however, has been too successful in relieving other grave deformities of the body, to make us despair, or even doubt of its ultimate success in remedying these serious malformations.

These malformations consist of 1, *Closure of the anus* by a membrane resembling the external integument; the bowel terminating at the anus, and the septum being so thin that the fluid collected within protrudes whenever the child cries. These cases ordinarily require only a crucial incision and the removal of the corner of the flaps thus formed, and some care to keep the opening patulous by means of tents.

2. The anus may be *completely absent*, its place being occupied by a dense fibro-cellular structure, and the bowel terminating in a cul-de-sac above. This deformity is much more serious than the former. The operation usually performed for its relief consists in puncture with a trocar or bistoury and the subsequent introduction of tents. The most novel operation in these cases was recommended by Amussat, and by him first performed. It consisted in dissecting up this cul-de-sac, drawing it down and attaching its border to the external integument.

3. The anus may be *contracted* so as to allow of the escape of the meconium only in drops. This condition is relieved by slightly incising the contracted orifice, and afterwards dilating it with sponge tents. If it depends upon a partial septum stretched across the passage, this must be divided.

4. The anus may be perfectly well formed, and appear natural, but at a variable distance above its orifice, generally about one and a half inches, the bowel is by a firm septum stretched across its passage. These cases are liable to be overlooked owing to the normal appearance of the external parts. They are, however, easily diagnosticated, when the attention is called to them. By

passing a probe up the rectum, it meets the obstruction, and where the septum is thin, an impulse is given to it whenever the child cries. This malformation is relieved, like the former, by puncture or incision of the occluding membrane.

These are the more ordinary forms of malformation of the anus and rectum, and those to which I wish especially to direct attention. In common with others, I have performed the various operations above mentioned with the most indifferent success. In some cases, death followed from an unknown and inappreciable cause. Again, it was the result of purulent absorption, especially in those cases where it was necessary to penetrate deeply in order to reach the bowel; and finally, the mass of cases terminated fatally by closure of the artificial passage, the constant tendency of which to contract being the greatest obstacle to overcome.

I have recently, however, resorted to a simple expedient which has seemed to avail something in the ultimate success of the operation, and to which I wish to direct attention. It consists in introducing the finger forcibly into the artificial tract and thus dilating it freely, both at the time of the operation and subsequently at short intervals. In three cases treated in this manner within the last year or two, two recovered, and the third died from neglect. The following brief notes of cases treated by some of the different methods alluded to will serve to show the fatality of these various operations:

CASE 1.—I was called, on the 24th of February, 1840, to see an infant which was born on the 21st, at 8 A.M. The child had had no evacuation of its bowels, and an imperforate rectum was found to be the cause. The anus and sphincter were entirely natural, but, on introducing a probe, a septum was encountered about one and a fourth inches from the verge of the anus. An operation being decided upon, the trocar and canula were carried through the obstructing tissue, and on the withdrawal of the former, the meconium was freely discharged. A flexible catheter was introduced and an injection thrown freely into the bowel. The case

progressed favorably until the seventh day when the child died from neglect.

CASE 2.—I saw a child on the 14th of March, 1841, which was born on the 12th, with an imperforate rectum, the closure being three-fourths of an inch from the anus. The bowels were very tumid. I introduced the trocar and canula and succeeded easily in giving free exit to the contents of the bowels. The child died, however, eighteen hours after the operation.

CASE 3.—This was a female child also having imperforate rectum and two days old when first seen, on the 16th of October 1841; it was suffering very much from the retention of the meconium. The septum was found to be one inch from the anus. I operated, as in the preceding cases, with the trocar, and had no difficulty in freely discharging the bowels. The same measures were also employed to keep the passage open, and with success; the child perfectly recovered.

CASE 4.—I was called on the 7th of December 1841, to see a fine male child, born on the 3d of the same month, who had passed nothing from its bowels. The rectum was found imperforate at the distance of half an inch from the anus. The abdomen was very much distended, and the child had suffered from convulsions during the previous twenty-four hours. I punctured with the trocar and succeeded in unloading the bowels freely. The child died on the following day.

CASE 5.—I saw this child 39 hours after birth. It had an imperforate rectum, the septum being one inch above the anus. The operation was performed as in the preceeding cases, the trocar penetrating to the depth of two inches from the verge of the anus, before it entered the bowel. The meconium was freely evacuated, and the urgent symptoms relieved, but the child died in nine hours after the operation.

CASE 6.—I was called to see an infant in Williamsburg, twenty-four hours old, which had an imperforate anus; there was no trace of an anus discoverable. When the child cried, I could detect with the finger a perceptible im-

pulse communicated by the bowel to the intervening substance. I made an incision, and succeeded in penetrating the cul-de-sac at the depth of one and a half inches. On the introduction of the catheter the meconium flowed freely. The child died.

CASE 7.—This child had an imperforate anus, for which an operation was performed on the fourth day, with entire relief. Four days later, it was found necessary to repeat the operation, as the artificial passage had been allowed to close. But it proved impossible to find the old passage, and accordingly a new one was made with the trocar. Not succeding however, in giving exit to any feculent matter, injections of warm water were used, and afterwards sweet oil, which escaped without any trace of fæces. A catheter was introduced, but with no better result. A small dose of calomel was ordered, and further attempts to reach the bowel delayed for several hours. Upon a second trial, the cul-de-sac, was reached without difficulty, and a free discharge from the bowels followed. The severe symptoms were relieved, the vomiting which had been troublesome subsided, and the case assumed a favorable appearance. A portion of flexible catheter was retained in the passage, and injections with warm water employed from time to time. The case progressed favorably after this operation and ultimately perfectly recovered.

CASE 8.—I was called to see this child, when two days old; it had passed nothing from its bowels, the abdomen was greatly distended, there had been efforts made to relieve it, but without success. The obstruction was about three-fourths of an inch from the anus. The operation was performed with the trocar, and the meconium freely discharged. Instead of withdrawing the canula and treating the case by the introduction of tents, as previously, I determined to dilate the passage freely by the introduction of the finger. To accomplish this, a knitting needle was passed through the canula as a guide to the opening in the bowel, and the canula being withdrawn, the little finger was carried forcibly along

the needle to the bowel, thus freely dilating the passage. On removing the needle, a pledget of lint was introduced, and the physician in attendance advised to pass his finger daily the whole length of the passage. The case progressed very favorably for several weeks, but this precaution being finally omitted, the child died.

CASE 9.—I was called to see a female child twenty-four hours old, December 12th, 1853, which had an imperforate anus. It was small, but well formed, and apparently healthy. The operation consisted in passing the trocar up to the bowel and evacuating its contents, which was done without difficulty; it was completed, as in the former case, by introducing the little finger, and forcibly dilating the passage. This practice was continued from day to day, and thus the tendency to the contraction of the passage and its ultimate closure, was effectually prevented. The child recovered.

CASE 10.—This was a fine male child, which was brought to me on the second day after birth, with an imperforate rectum. I operated as in the two last mentioned cases by the introduction of the finger after the withdrawal of the instrument, and freely dilated the passage. As in the preceding cases, the patients were left in charge of others, to carry out the treatment, and the failure seemed due to neglect, I determined in this case to attend to it personally. The parents were therefore, directed to return with the child every two or three days. They did as directed with great punctuality, and the passage was frequently and thoroughly dilated, but without causing the child any inconvenience. This dilatation was continued several weeks, when, as the passage showed no tendency to contract abnormally, this practice was discontinued. The child continued to thrive finely, but died when about two years old, of croup.

CASE 10.—*Laceration of the Perineum and Sphincter Ani during Parturition—Cured by division of the Sphincter and subsequent closure of the Perineum by Sutures.*

I was called on the 24th of October, 1849, to see Mrs.

M——, who had recently been delivered of her first child. Her labor was terminated with instruments, and an extensive laceration of the perineum, involving the sphincter ani, followed their employment. I was called in consultation a day or two after her confinement, to relieve, if possible, by an operation, her unfortunate condition.

On examining the parts, I found the laceration very extensive, extending fairly through the sphincter ani, the edges being widely separated, and the torn ends of the muscle drawn upon either side toward the coccyx. The appearance of the wound resembled that which is produced on dividing the orbicularis oris, the edges of the wound being drawn widely and permanently asunder by the contraction of the muscle.

The appearance of the wound suggested the method of cure. It would be difficult to retain the approximated edges of the lacerated parts of the anus in apposition while the sphincter remained in its present condition, strongly retracting its lacerated edges towards the coccyx. I accordingly proposed to divide the sphincter subcutaneously, but thoroughly, on each side of the coccyx, and then, after trimming the edges of the perineal laceration, approximate the lips of the wound, and retain them by deep clamp or quill sutures. The operation was acceded to by the gentlemen in attendance, and I proceeded at once to operate.

The sphincter was thoroughly divided at the points above indicated, and the edges of the wound, paired, were easily approximated and retained by the quill suture. The bowels were confined by opiates for several days and finally moved with injections of sweet oil. Union readily took place, and the result was most satisfactory.

Remarks.—Rupture of the perineum has been justly considered one of the most serious accidents of parturition, so difficult have these wounds proved of cure. It has, indeed, been advised to leave them wholly to nature, as not susceptible of treatment. The success of the operation in the preceding case, one of the most formidable that can occur, dem-

onstrates the fallacy of such an opinion. These lacerations of the perineum may vary from a simple rupture of the fourchette to a complete division of the vulvo-anal septum, involving the sphincter ani. This latter is far the most serious, as presenting the greatest obstacles to cure.

Two principal methods of cure have been proposed. The first is, to effect a reunion by rest and cleanliness, without the resort to surgical means; and the second, to promote union by surgical interference. Surgical and obstetrical writers seem to be about equally divided in the adoption of these methods. Among the French, Boyer and Duparcque favor the former, and Dubois and Roux the latter. Mr. Brown, in his recent work,* concludes in regard to the opinions of English writers :—"On the whole, the prevalent opinion in England appears to have been that, from the uncertain, and, most frequently, unsuccessful, results of the operations devised, and from the apparently insuperable difficulties to be contended with, it was better merely to aid the efforts of nature in narrowing the wound, and in lessening the evils attendant on it." The method of treatment by rest and cleanliness is generally all that is required when the laceration is slight, and it is adopted immediately after the accident has occurred. But in those severe cases, when from the use of the forceps, or mismanaged labor, the rent extends completely through the sphincter ani, the suture offers the only reliable means of cure.

The different forms of suture used have been, the interrupted, the twisted, and the quilled, and of these the latter is generally preferred. Mr. Higginbotham reports a case in the *Lancet*, vol. 2, 1849, in which the laceration extended through the sphincter ani; he used the interrupted suture in two places, and applied the nitrate of silver to the skin along the edge of the wound. "The wound united by the first intention; the eschar surrounding the laceration, made by the

*On Some of the Diseases of Women admitting of Surgical Treatment. By ISAAC BARKER BROWN, F.R.C.S., Surgeon-Accoucheur to St. Mary's Hospital, etc., London: Churchill, 1854.

caustic, had the power of fixing the parts as if adhesive plaster had been applied." The operation was performed thirteen years before the date of the report, and during that time the patient had remained well, and borne nine children without any return of her trouble. Several cases have been reported cured with the hare-lip pins and twisted suture, but the quilled suture is much more frequently used at present than any other, and is decidedly preferable to those mentioned. In repeating this operation, however, I should prefer to use the clamp suture of Dr. Sims, of this city, which I believe would be admirably adapted to these cases, and for the introduction of which into surgical practice he is deserving of great credit.

There was one step in this operation to which I would call particular attention, as contributing not a little to its success, viz., the complete division of the sphincter ani upon each side of the coccyx. By this simple measure, the tension was entirely taken from the posterior lips of the wound, which had previously been widely separated and drawn outward and backward, and the edges were in consequence readily approximated and easily retained in apposition. The necessity of this step to overcome the principal obstacle to the retention of the opposed surfaces in easy apposition, was impressed upon my mind while contemplating the appearance and anatomy of the parts engaged. The sphincter ani muscle having a strong and unyielding attachment to the coccyx, acted powerfully and constantly in separating its anterior lacerated portion, and, of course, in drawing asunder the rent in the perineum. The remedy for this difficulty very naturally suggested itself. By dividing the coccygeal attachments of this muscle its action would be destroyed and its power to prevent the perfect and undisturbed contact of the wound would be neutralized. The result of its division justified this conclusion, for not the slightest difficulty occurred in accomplishing this hitherto formidable task, and obtaining union throughout by the first intention. To relieve the strain upon the sutures, where the perineum is rigid and tense, Diffenbach made elliptical incisions upon each side of

the median line; and recently, Mr. Hilton, of London, has, by subcutaneous incision, divided the coccygeal attachments of the sphincter and levatores ani muscles, for the purpose of changing the direction of their action from the coccyx towards the pubes.

At the time the above operation was performed in 1849, I was not aware that the division of the sphincter had ever been recommended, much less practised in these cases. It appears, however, according to Mr. Brown, that Saucerotte once operated in a similar manner, and Mr. Erichsen states (*Science and Art of Surgery*) that it was advised by Copeland, and approved by Bransby Cooper. Within the last year or two, Mr. Brown, of London, has operated in this manner very successfully, and in his work, above referred to, the different steps of the operation are finely and accurately illustrated by engravings. He is a warm advocate of the operation thus modified, and reports eighteen cases thus successfully treated.

It will be observed that my operation was by subcutaneous incision while that performed by Mr. Brown involves the external, as well as internal parts. In regard to the subcutaneous incision, he remarks [Page 41], "A subcutaneous incision of the sphincter has been suggested, but it will not furnish the results aimed at. The muscular fibres of the sphincter must be completely severed, and also the investing integument, to annihilate all traction." This objection is without foundation, as the puckered, folded integument of the anus, when once the sphincter is divided, is capable of indefinite extension, and exerts not the slightest traction upon the flaps of the wound. As to the results which subcutaneous incision furnish, we need but refer to the above case to prove that they are satisfactory.

CASE 11.—*Hypertrophy of the Sphincter Ani — Obstinate Constipation from its Spasmodic Action — Relieved by free Division.*

Mrs. C., an intellectual lady, aged 26, of a highly nervous temperament, and also imaginative, married about four years, but never pregnant, came under observation in 1852.

She had been a sufferer from her childhood, from a peculiar form of constipation, or rather a retention of the contents of the bowels from a peculiar cause. It seems that when about six years old she passed from her bowels some lumbricoides, the appearance of which, or the sensation which they produced, made a strong impression upon her mind. It happened subsequently that her imagination controlled the action of her bowels by inducing spasmodic action of the sphincter ani. She became so morbidly sensitive whenever her bowels were about to move, that under the impression that worms were about to pass from her, the sphincter would close firmly and entirely prevent the passage of fæces. In this manner a whole month often passed with repeated, but vain efforts to procure a dejection from the bowels. At every attempt, no sooner would she arrange herself for defecation, than the approach of the fæces to the rectum would induce a spasmodic and uncontrolable action of the sphincter and render all her efforts abortive. This state of things had continued for years, and was very perceptibly impairing her health. An actual movement of the bowels could be obtained only by the aid of active cathartics and it was then attended by the most intense suffering. She had resorted to various remedies, change of diet, etc., but with no benefit.

On examination, no disease of the anus or rectum, as fissures or ulcerations, could be detected on the most careful exploration; the only abnormal appearance was an enlargement of the sphincter muscle, which was in a truly hypertrophied condition, being markedly increased in bulk and strength. I directed her to restrict her diet to laxative food, such as rye, mush, wheaten grits, raw oysters, etc., and prescribed aperient medicines, and belladonna ointment to be applied to the anus. These measures, however, had no special or permanent benefit.

I then proposed the operation of dividing the sphincter muscle, which was submitted to, after a little hesitation. She was brought under the influence of an anæsthetic and the sphincter was divided freely upon both sides. Her ner-

vous system was considerably excited by the anæsthetic, but she recovered from the operation with no unfavorable symptoms. The result of the operation was very satisfactory, as the morbid sensibility was almost entirely relieved, and the evacuation of the bowels rendered comparatively easy. She was seen recently and remarked that the operation had benefited her very much.

Remarks.—Spasmodic contraction of the sphincter ani is generally associated with, and dependent upon, ulcer or fissure of the anus. It may, however, exist independently of such causes, and is then dependent upon some other source of irritation, or upon a hysterical condition of system.

The preceding case is closly allied to the latter, though differing sufficiently to form a separate class of cases. The loss of consent and sympathy between the different muscles necessary to the expulsion of the fæces was, due to a purely mental cause, and not to a morbidly sensitive condition of the reflex spinal system. In the early history of the case, the action of the diaphragm and abdominal muscles was normal, the passage of the fæces along the bowel to the rectum produced no spasmodic action of the sphincter muscle, but when the expulsive act was about to be completed, the imagination became strongly excited, and the sphincter was closed involuntarily. This act was repeated from time to time, and finally became a fixed habit. The sphincter, in the meantime, by its unwonted action and powerful contraction, to resist the force of the abdominal muscles in effecting an evacuation of the contents of the bowels, of necessity gradually acquired bulk and strength, as in the case of any other muscle impelled to unusual exertion. Its action at length became purely spasmodic, being excited by the passage of fæces along the rectum, and the act of defecation could not be completed unless the intestines and abdominal muscles were stimulated to unwonted action by powerful cathartic medicines.

Spasmodic contraction of the sphincter ani, independently of any local disease, has been described by Boyer, Dupuy-

tren, Mr. Brodie, and others. The former seems to have been the first to describe the disease and point out the proper method of treatment by division of the sphincter. In an article in the *Journal Complementaire*, t. 2, p. 24, *On some Diseases of the Anus*, he relates three cases which he treated in this manner with success. Dr. Bushe, of this city, in his work on the *Diseases of the Rectum and Anus*, also describes a form of spasmodic contraction of the sphincter, in which no local disease is discoverable, and which admits the passage of the finger without pain. Mr. Brodie speaks of it as a disease of not very uncommon occurrence, and remarks that "it is met with chiefly in women, especially those who are disposed to hysteria. It is, however, met with in other women, and sometimes in the male sex."—(*Lond. Med. Gaz.*, vol. 16, p. 26.)

Mr. Quain, however, in his recent work,* denies that spasmodic contraction of the sphincter ani ever occurs as an idiopathic disease, and states, that after an attentive examination of the cases reported as such by Boyer, he does not find any which confirms the opinion held by this surgeon. He regards them all as "examples, not of an idiopathic affection of the sphincters, but of disease of the mucous membrane, with sympathetic spasm of those muscles." It is true, as he remarks, that it is often very difficult to find the local ailment, and, therefore, it is liable to be overlooked; but in the present case there can be no doubt that the spasmodic affection of the sphincter was entirely independent of any local disease.

This hypertrophied state of the sphincter, dependent upon its spasmodic action, is an interesting fact. Brodie mentions it in his lectures, above referred to, as follows: "The contraction of the sphincter at first appears to be merely spasmodic, without any other change of its condition; but you know that, in proportion as muscles are called into greater action, so they become increased in bulk; and, in conformity with this general rule, when spasmodic contraction of the

**The Diseases of the Rectum.* By RICHARD QUAIN, F.R.S., London. 1854.

sphincter muscle has existed for a long time, the muscle becomes considerably larger than it was in its natural state, before the disease existed." In the present case it was largely developed.

The only measure likely to relieve this complaint, is, obviously, division of the sphincter. This object the operation will certainly effect temporarily, and if it completely break up the habit, the relief will be permanent. The patient in the present instance was, at first, perfectly relieved by the operation, and though not entirely cured, still expresses herself greatly benefited. Her bowels now move regularly every day, with only an occasional Seidlitz powder.

CASE 13.—*Constriction of the Anus in an Adult, of many years duration—Relieved by Division of the Sphincter Muscle.*

Miss ——, aged 33, of Columbia Co., N. Y., consulted me for a complaint from which she had suffered fourteen years, and which she called "piles." The most prominent symptom was extreme costiveness, a passage from her bowels being obtained with great difficulty and severe pain, and only as the effect of active cathartic medicines. The difficulty was slowly progressing, and now rendered her life very miserable. She had been treated by many physicians, and used a great variety of remedies. She had never been examined, and was somewhat diffident when this measure was proposed as necessary to a complete understanding of her case.

She at length submitted, and, instead of hæmorrhoids, I found the anus nearly closed, the passage being not larger when forced than a common quill. There was no scirrhus, the stricture being due to simple contraction. She was informed that she could be benefited, and perhaps entirely cured, by an operation, and that medicines would be of no service whatever, in effecting a cure. She consented to the operation, after several days reflection. Ether was administered, and the sphincter divided deeply at three points. The usual dressings were applied—free hæmorrhage occurred, so as to require a tampon to restrain it—but the wounds cicatrized

readily, and she was soon able to realize the benefit of the operation. For a considerable time the relief was complete, and she considered herself cured; latterly, however, the former symptoms have begun to recur, and it is probable that, eventually, another operation will be required.

Remarks.—Narrowing of the anus in the adult, uncomplicated with scirrhus, is a rare disease. It may occur as the result of operations for hæmorrhoids, or from ulcerations, located in its immediate vicinity. Mr. White describes a form of contraction, (*Obs. on Strictures of the Rectum,*) where it has resulted from the matter of syphilis and gonorrhœa; and Dr. Bushe also reports a case which was attributable to this cause. The narrowing or contraction of the anus in the present case was not traceable to any cause, but seemed due rather to a chronic thickening of the submucous tissue. Mr. Ashton* mentions having seen two cases of contraction of the anus by infiltration of lymph, but in both instances the complaint had been preceded by dysenteric symptoms.

The treatment usually followed in these cases, is gradual dilatation with bougies. This method of overcoming the difficulty, is very tedious and painful. I should much prefer free division of the sphincter, and subsequent dilatation with bougies if necessary, as being less painful and troublesome, and affording the fairest prospect of ultimate recovery.

CASE 14.—*Ulceration of the Rectum and Colon—Division of the Sphincter, Cured.*

I was consulted Oct. 20th, 1853, by Judge P. P., of New Orleans, for an affection of his bowels, from which he had suffered severely for a year or more. It appears that during the prevalence of the cholera in that city, he had been accustomed whenever his bowels showed any tendency to looseness, to take large doses of anodynes and astringents, and by this means confine them for several days. The consequence of this over-treatment, was a severe attack of dysen-

* *A Treatise on the Diseases, Injuries, and Malformations of the Rectum and Anus*, By T. J. ASHTON. London, 1854.

tery. He recovered from the acute symptoms, but the ulcerations of the rectum and colon remained. For the relief of the distressing symptoms which they gave rise to, he had resorted to a great variety of treatment; and when he first consulted me in this city, he was on his return from Paris, where he had been under the care of different medical men of eminence, but without obtaining much relief.

His symptoms at this time were of the most aggravated kind, being increased by his sea voyage; he was much emaciated; countenance anxious, mind gloomy and greatly depressed: pulse 120 per minute; skin hot and dry, passages from the bowels frequent, containing blood, mucus and pus, and accompanied with severe tenesmus; the whole tract of the colon very tender on pressure. On examining the rectum, the finger encountered a rough ulcerated surface, very painful and hot, and extending as far as it could reach. The nature of the difficulty was evidently ulcerations of the rectum and colon, from a previous attack of dysentery.

The treatment which I adopted was perfect rest in bed, anodynes to allay the irritability of the system, and a nitric acid issue, six inches long and two wide, along the course of the signoid flexure and descending colon. The effect of this treatment was soon manifest in a diminished action of the bowels, less tenesmus, composure of body and mind, and a general improvement in all the functions of the body. He steadily improved, and on the 25th of December left for the South, quite restored to health; although his trouble was not entirely removed.

On the 4th of June, 1854, he again came under my care, suffering from his former complaint, in, if possible a still more aggravated form. He had come from New Orleans by sea, and experiencing a rough passage, the severe and torturing symptoms of his disease had been increased, and the system reduced to a state that made him despair of recovery and threaten self-destruction to end his sufferings. The dejections from his bowels were now almost constant, attended with the most painful and harassing tenemus, a constant

burning sensation in the rectum, and a consequent irritability of the system that admitted of neither refreshing sleep or rest.

I placed him under treatment, and in succession adopted such measures as seemed most suitable to his condition. Injections of nitrate of silver thrown high up, sulphate of zinc, etc., anodynes, and astringents with tonics, were variously administered, but with no benefit whatever. The weather now became hot and oppressive, his contemplated visit to Europe had to be given up, the passage having been already engaged, and there was great danger that his system would soon sink under the disease. The ulcerations were evidently extending, and more and more of the tract of the colon became daily involved; the pulse was 120 per minute, and often more; stools frequent and bloody; fever at night, and extreme restlessness.

As all the remedies had been faithfully tried which offered a chance of success, I now proposed to him an operation as the only measure likely to afford relief. He gave his consent without hesitation, and accordingly, on the 15th of July, I proceeded to divide the sphincter ani. He bore the operation well, and the relief was almost immediate. Pills of nux vomica and conium were given, and nourishing diet. The tenesmus and constant disposition to evacuate the bowels subsided, the irritability of the system diminished rapidly, and his progress towards recovery was uninterrupted. On the 6th of July he sailed for Europe, in a comfortable condition, and suffering from none of his previous symptoms. I have occasionally heard from him since and to the present time he remains well, with no tendency to a return of his former trouble.

Remarks.—The operation of dividing the sphincter in ulcer of the anus and rectum was first practised by Boyer, and with great success, in several cases which had resisted obstinately all local and general treatment. The correctness and necessity of this treatment are obvious; if rest is essential to the healing of an ulcerated surface, in no other way

can it be more effectually secured in ulcer of the anus, than by destroying the action of the muscle upon which it is situated. The very existence of an ulcer at this point precludes all hope of a spontaneous cure. Rest is essential to the healing process, and yet the necessary irritation which the ulcer produces, induces a constant and painful action of the sphincter, entirely incompatible with cicatrization of the lesion of the mucous membrane.

Division of the sphincter where ulcerations of the rectum and colon co-exist, dependent upon a previous attack of dysentery, has not attracted much attention. And yet the same necessity for the operation exists in this as in the preceding instance. The constant irritation of the ulcers situated just within the anus keep up the most painful, spasmodic action of the sphincter, which compels the patient to strain almost constantly at stool, and these efforts still farther aggravate his condition by forcing along the bowel and over the irritable ulcerated surface, small quantities of fæcal matter, pus, and blood. It is evident that the sphincter plays a most important part in this morbid process, and should that muscle cease to act, it could not fail to follow that the bowel would be easily quieted, and the conditions necessary to the cure would be obtained.

Mr. Ashton, before referred to, seems to regard these cases as nearly hopeless. He remarks, "should ulceration attack many points of the intestine, and extend high up, the probability will be a fatal termination of the case, in spite of the most judicious measures we can employ." The success of the operation in the case above related, certainly one of the most aggravated kind, fully justified my expectations, and establishes the importance of such procedure, in similar cases. I had operated, in 1848, upon a female, from Mass. for ulcer of the rectum by division of the sphincter, with equally favorable results; and I was induced from my experience in that case, to resort to the same operation in this instance.

ART. II.—*Influence of the Poison of the Northern Rattlesnake—(Crotalus Durissus)—on Plants.** By J. H. SALISBURY, M. D.

IT is a curious and well known fact, that some of our most deadly poisons are animal secretions, and that the very animals—the very tissues which secrete these powerful proximate organic principles, are as susceptible to their deleterious influence, when introduced into their circulation, as the tissues of the most harmless animal would be under similar circumstances. It is also well known that many vegetable products are highly poisonous to animals. But the influence of animal and vegetable poisons upon plants, has—although a subject scarcely less interesting in a physiological point of view—excited but little attention. The simplicity of the plant's structure, renders the field one of peculiar interest, in the way of studying the general action of medicinal agents and poisons upon organized tisues.

On the 18th of June, 1851, a large female rattlesnake, which had been caged in the N. Y. State Cabinet of Natural History, for about a year, without food, died. On dissection, its stomach and intestinal canal were found entirely empty. The sac into which the poison is emptied was laid open, and the virulent matter (of which there was little), carefully removed and placed in a porcelain capsule. About fifteen minutes after its removal, four young shoots of the lilac—*Syringa Vulgaris*, a small horse-chestnut of one year's growth—*Asculus Hippocastamum*, a corn plant—*Zea Maize*, a sunflower plant—*Helianthus Annuus*, and a wild cucumber vine, were severally vaccinnated with it. The vaccination was performed by dipping the point of a pen-knife into the poisonous matter and then inserting it into the plant just beneath the inner bark. No visible effect, in either case, of the influence of the poison was perceptible till about sixty hours after it had been inserted. Soon after this the leaves

* The principal facts in this article were formerly published in the Trans. of Amer. Scientif. Assoc., but as through this medium they have obtained a limited circulation, especially among medical men, I desire to bring them more directly before the profession by publication in a medical periodical.

above the wound, in each case, began to wilt. The bark in the vicinity of the incision exhibited scarcely a perceptible change; in fact it would have been difficult to have found the points, if they had not been marked when the poison was inserted. Ninety-six hours after the operation, nearly all the leaf-blades, in each of the plants, above the wounded part were wilted, and apparently quite dead. On the fifth day the petioles and bark above the incisions began to lose their freshness; and on the sixth, they were considerably withered. On the seventh day they appeared about as they did on the sixth. On the tenth, they began to show slight signs of recovery. On the fifteenth, new but sickly appearing leaves began to show themselves on the lilacs, and the other plants began to show slight signs of recovery in the same way. Neither of the plants were entirely deprived of life.

It was interesting to mark the progressive influence of the poison. The first indication of the derangement of the healthy functions of the plants was observed in the leaves: these began to wilt and die at their edges and apices; and this death gradually and uniformly advanced on all sides towards the midrib and petiole, till the whole or nearly the entire leaf-blade was destroyed.

It is an interesting fact in physiology, that the plants first exhibited signs of death in the leaves; and still more interesting, that this death commenced first in the leaves, on the side of the plant, in which the poison was inserted*

The facts materially deducible from these experiments are:—

1. That the effects of the poison of the rattlesnake upon plants and animals, when introduced into their circulation, by a wound, are similar.†

* This shows a less perfect system of Anastomosing vessels than exists in the animal.

† It is stated on good authority, that the poison of the snake can be taken into the stomach of the animal with impunity; its dangerous effects being only exhibited when introduced into the circulation by a wound. It would be interesting to note its influence on the animal when applied externally, to the skin, to see whether its deadly effects would be modified by the absorbents.

2. That it requires a much longer time for it to affect the plant, than the animal.*

3. That the effects were invariably exhibited on the parts above the wound, and in no case affected the leaves below it.†

4. That it invariably affected first the leaves on the side of the plant in which the incision was made.

5. That its influences were first rendered visible on the edges and apices of the leaf-blades.

ART. III.—*Reclamation on the Treatment of Ulcers by Anaplasty.* By JOHN WATSON. M.D., Surgeon to New York Hospital.

IN our current medical literature we occasionally meet with the announcement of surgical operations and of other performances, as novelties, which have no claim to be so considered. In some instances of this sort, I have seen friends and acquaintances unjustly overlooked; and in some, again, I have had reason to complain on my own account. Up to the present time, however, I have been willing to allow whatever little may have been added to the stock of surgical knowledge by myself to make its own way in the world, and pass for what it is worth, independent of the source whence it came. Nor should I on the present occasion deviate from this course, had I not in view the correction of an evil which appears to be on the increase.

The eagerness with which the busy practitioner is now and then solicited to write for the periodicals, and the little time he usually bestows upon his literary contributions, may offer some excuse for the unintentional oversights, or acts of injustice to which I now allude. But it should be remembered that the desire of being useful is not the only

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* It should be stated, in order to show that animals were readily affected by the poison of the snake, that a short time previous to its death, a rat bitten by it died in two hours.

† This was probably owing to the small quantity of poison inserted in each case.

incentive to authorship; and that, among the rewards of the medical writer, not the least is the favorable notice of his labor by his professional brethren.

I would not do our critics and reporters the injustice to suppose that in any considerable number of instances, the oversights to which I allude, are intentional. Hasty composition and deficient information will explain the most of them. We are all, more or less, subject to forgetfulness. We receive impressions in reading or conversation, which, in due time, we turn to good account in practice; but, inattentive to the source from which they are derived, we may act upon, or write about them, as our own; place them, without suspicion of error, to our own credit; and lay claim to the results obtained from them as if they had been the original and spontaneous suggestions of our own minds. Now, this is among the evils at present existing under the sun; an evil, however, which by a little careful study, may easily be obviated.

And here permit me to say, that I have been more immediately led to these remarks by the perusal of an article in the last number of this Journal, entitled "*Elkoplasty*," or "*Old Ulcers Treated by Anaplasty*," from the pen of my worthy friend, Dr. F. H. Hamilton, of Buffalo; in which article Dr. H. reports the case of an ulcer on the leg, cured by an anaplastic operation which he performed in January last. In the same paper Dr. H. claims to have proposed this method of treating ulcers as long ago, as 1846; and to have at that date, in his clinic at Geneva Medical College, "anticipated most of the results" which he has "now actually obtained."

As an offset to these claims, it is but justice to say, that in his proposal, as well as in his results, Dr. H. has been anticipated, on at least two occasions, by myself, once in April, and once in July, 1844.

The first of these operations was for the cure of an old ulcer on the forehead, the result of syphilis, and complicated with necrosis and exfoliation of nearly the whole external

table of the os frontis. A report of it appeared in the *American Journal of Medical Sciences*, for October, 1844, (page 537); and the details of it, under the head of "Melopoplasty, or Forehead-mending," were again published in the first volume, (page 711,) of Townsend's translation of Velpeau's Surgery; which appeared in this city, in 1845.

In this case, after vivifying the edges of the ulcer with the knife, and quickening its surface with a wash of concentrated aqua ammonia, I succeeded in covering the diseased surface by means of three large flaps; one of which was taken from the integuments of the temple on either side of the ulcer, and the other from the scalp above it. The recovery was rapid and complete. The patient afterwards officiated for some years as a nurse at the New York Hospital. The improvement in his appearance effected by the operation, was beyond all expectation. To the observer standing at a little distance from him, the lines of cicatrization on the forehead were barely visible; and his elevated and open countenance gave hardly any traces of its former loathesomeness and deformity.

Since this first operation, I have had but one occasion to recommend a repetition of it on the forehead. But in that instance, the patient died of an intercurrent and acute disease, before the operation was attempted. My second operation of the sort was for the cure of an ulcer on the foot. I cannot at present refer to any printed notice of it. But the case, at the time, was much talked about, at the Hospital and elsewhere, and has often been the theme of conversation since. I give the particulars of it from my own note-book. It is also recorded in the N. Y. Hospital Case-Books. (First Surgical Department, vol. 3., case 50, page 291.)

G. C., a young English seaman, was admitted by an order from the British Consul, in or about the year 1834, having by exposure to severe weather at sea, lost the greater portion of his left foot, and all beyond the tarsal bones of the other foot. The injury at the date of his admission, had been of several months' duration. The ulcerated surfaces

left by the sloughs, had already partially cicatrized. But the loss of substance was so great that the patient could no longer use his feet in walking, and was obliged to move about upon his knees. After remaining for some months under treatment, the cicatrices becoming firm, he was supplied with an apparatus for each foot, somewhat after the manner of a Scarpaso shoe, having a firm wooden portion in front to supply the lost portion of the foot. By means of this apparatus, and subsequent modifications of it, which were the result of his own ingenuity, he was soon able to walk about upon his feet; and, being an active and intelligent man, he was appointed nurse in one of the surgical wards, in which capacity he still continues at the Hospital.

But, from time to time, the pressure of the shoes gave rise to much inconvenience, and occasionally to ulceration on the face of the stumps; obliging him at intervals to lay aside his shoes, and take to his knees again in walking. He had been for some months in this condition, in the early part of 1844. The principal uneasiness at that time was from a callous ulcer on the stump of the right foot. The annoyance from this was such as to compel him for a season, to remain in bed. After more than two months' confinement in this way, failing to effect a cure by milder means, I proposed to him an anaplastic operation. To this he readily consented, and it was accordingly performed on the 30th of July, 1844.

It consisted in carrying the point of a bistoury through the callous integument completely around the circumference of the sore, and at about the distance of a line from its outer border; in shaving off the surface of the sore, and quickening the whole of it, up to this line of circumvallation; in dissecting up a flap of integument from the top of the foot, and by the twisting and gliding process, bringing this down and securing it by sutures over the surface of the ulcer, so as to leave no raw surface exposed; and finally, in approximating the integuments at the gap, on the top of the foot, from which the flap had been taken.

The operation was a painful one, and gave rise to consid-

erable inflammation. A narrow border of integument along the lower edge of the flap, sloughed away; and for a day or two the case seemed to threaten a disastrous result. But the inflammation subsiding, the reparative process soon followed; and, in less than three weeks from the day of the operation, the line of cicatrization was completed, and the ulcer closed. The patient, however, did not immediately afterwards resume the use of the shoes. But in the following November he was again about the house on his feet, and attending to his usual occupation. Since that period, his right foot has given him little or no uneasiness, but he has at times some trouble from tenderness in the other foot.

In connection with these cases, I might refer to several others of more or less importance, in which similar anaplastic measures have been adopted at the Hospital by my colleagues and myself, for the removal of deformities, the closing of fistulous ulcers, in the covering of ulcerated stumps. But proceedings of this sort are sufficiently common. They are to be looked upon only as special applications of the already well-established rules of anaplastic surgery; and in this light they have no claim to be spoken of as novelties.

The only marked differences of treatment between the case reported by Dr. Hamilton, and those spoken of above, so far at least as principles are involved, are that in his the flap was taken from the opposite limb, and in mine, from the immediate vicinity of the ulcer. He used the knife in quickening the ulcerated surface; whilst in one of my cases the knife was used, and in one, a wash of concentrated aqua ammonia. I do not see the force of the argument in favor of taking the flap from the opposite limb, so long, at least, as available integument can be procured near by. The difficulty of transplanting a flap from a remote point is hardly to be over estimated; and when from a different limb, the restraint to which the patient must be subjected during the process of adhesion is, to make the best of it, frightful; and never to be imposed upon any one, except under circumstances of the most urgent necessity.

But so far as the mere closing of simple ulcers is involved, thanks to the elasticity and yielding power of the skin, the anaplastic method is rarely necessary. In those of moderate size, and in some, too, of immense size, nature does the work of reparation with very little assistance, provided, always, that this little be judicious. And on those, again, of greater size, such for example, as result from extensive burns and scalds, or from diffuse gangrenous erysipelas, a flap of sufficient dimensions to cover them could hardly be removed with safety from any part of the body.

NEW YORK, October 9, 1854.

ART. IV.—*Suggestions relative to the Pathology and Treatment of Cholera.* By J. P BATCHELDER, M.D.

"I HAVE read," says Dr. Davey, "and not without care and attention, the opinions and advice of many gentlemen in that Journal, (the London *Lancet*); but I have failed to detect any thing like a rational exposition of the nature of this calamitous visitation; and what is more, I have sought in vain for a philosophical—*i. e.*, a scientific plan of treatment which shall aid us to combat this oft-recurring epidemic—Cholera.

No two medical practitioners seem agreed as to either the proximate cause of this malady, or the indications of treatment to be kept in view. Whilst one advises mustard emetics, one acids, one alkalies, one opium, one calomel, one brandy, one astringents, as chalk, lead, etc., others, not the less zealous, and of equal practical acquaintance with the disease, will be found to recommend tincture of muriate of iron, croton oil, and so on, without end. If all this be true, and who can doubt it after reading our own and the other medical journals of this day?—it must follow that our profession is somewhere at fault—that it has not yet assumed that deliberative tone, and those cautious and logical inquiries so indispensable to the right apprehension of a delicate and difficult subject, like the present one.

The succeeding remarks I am not without hope will, in some degree, facilitate a solution of the seemingly mysterious question—'What is cholera, and how is it to be treated?' In answer to these questions, we most respectfully propose to offer the following suggestions:—The very essence of this disease consists in a copious effusion of the more fluid or watery parts of the blood into the stomach and bowels, from which they are generally expelled by vomiting and purging—effects mainly imputable to two circumstances. 1. The want of accord between the physical properties of the effused fluid, and the sensibility of the membrane lining those viscera—deprived of its epithelium. 2. The mechanical distention occasioned by the quantity (usually very large) of the effusion within their cavities.

A sudden and violent contraction of the extreme vessels *(one more steady and less violent comprises the main predisposition)* forces the blood inward upon the internal organs, and causes their vessels to be abnormally distended, which excites them to contract. These vessels, contracting, move their contents in the direction in which they meet with the least resistance, and ultimately force them into the cavities of those organs. In this we have said cholera consists, and in this it differs from all other diseases. This, indeed, constitutes its specific character—logically speaking—its specific difference. The premonitory diarrhœa, although reckoned as one of the stages (diarrhœal) of the disease makes no part of cholera proper. It is only a predisposing cause—the most powerful and certain of all others, to usher in the disease.

If, just previous to the effusion, the vessels on the surface should relax, there would be a reflow of the fluids, and none of them would find their way into the intestinal canal. There might be chills and fever, but no cholera. Up to the period when effusion takes place, the analogy between cholera and intermittent fever, seems to be complete. The same cause which produces the one may produce the other, which explains the fact why intermittent fever so frequently

precedes cholera. The cause which produces the difference between the two diseases we may not be able to point out; but we hope to be more successful in regard to the difference itself.

The effused fluid is neither a secretion, nor an excretion, but one of the constituents of the blood, which flows in a series of minute vessels, adapted and particularly appropriated to its circulation; its effusion, therefore, must be viewed somewhat in the light of an hæmorrhage, in which one of the constituents of the blood only is allowed to escape; but this, however, important as a practical suggestion, explains nothing. We are as much in the dark as ever, why one or all the constituents of the blood do not find their way into the stomach and bowels. Here analogy steps in to our relief.

The mucous membrane which lines the alimentary canal is, in its organization, analogous to the skin. It is, in fact, to the internal, what the skin is to the external surface of the body.

Now the skin is covered with a cuticle, which prevents the escape of certain fluids, and also precludes the absorption or admission into the body of certain agents which would prove not only detrimental but destructive in the highest degree.

Without this beneficient provision of nature, no one, even here in this highly-favored city, where we have a street-commissioner, health-wardens, and a *board* of health could live an hour.

For the further preservation of life, a similar provision in relation to the internal organs was necessary, and has been made.

The epithelium, or internal cuticle, is similarly constituted and arranged, and for precisely the same purposes—to permit the passage of certain secretions into the intestinal canal—to prevent the escape of the blood proper, or any of its constituents, as the serum, which circulates in the capillaries of the mucous membrane, and also to prevent the absorp-

tion, or admission of the noxious matters which abound in that canal.

The analogy relates thus far, to the structure and function of the parts in their normal condition. Let us extend it a little further—into the region of pathology.

If the cuticle be merely separated from the skin, an effusion of serum certainly follows, as in the case of a scald, a blister, erysipelas, bullæ, etc., an occurrence which we believe never happens without such a separation; and in cholera it is now a well established fact, that the discharges are mostly composed of serum—serum of the blood.

Reasoning from analogy, we infer that an extensive detachment of the epithelium or internal cuticle, has taken place in cholera, which constitutes the peculiarity or distinctive character of the disease;—that it is indeed its proximate cause, or the state which immediately precedes that which constitutes cholera. The microscope has indeed settled this question, for it has discovered in "the first excretions large quantities of epithelium in various stages of development, which was identical with that of the enteric mucous membrane."*

The removal of the epithelium from "the enteric mucous membrane," unstops the mouths of innumerable little vessels which open into the cavities of the stomach and bowels, and allows the serum of the blood to escape in ten thousand streams, which soon renders that fluid (the blood) incapable of sustaining the functions of life. Every organ is completely unstrung; hence the fearful, sudden, and almost certain fatality of the disease.

"*In all cases examined by the microscope, of the first excretions there were found large quantities of epithelium in various stages of development, and which was identical with that of the enteric mucous membrane;* but the stools which were examined during the latter premonitory, or collapsed stage contain-

*I have just been told by Dr. Budd, one of the intelligent physicians attached to the Franklin street hospital, that he had had the liquid found in the stomach and bowels (which were filled and distended to their utmost capacity with the rice-water discharge) examined microscopically, and that it contained a large quantity of epithelium. This patient had neither vomiting nor purging during the progress of the disease, yet all the other phenomena incident to it, were found most distinctly marked in all the organs.

TREATMENT.—When called to treat a dangerous disease, especially if epidemic, the first question the physician asks himself, is, what is its special mode of destroying life? In none is this inquiry of graver import than in cholera; and in few is it more easily answered, for nearly all its phenomena indicate that it causes death by exhaustion, technically—"death by anæmia;" if so, a single ounce of fluid lost or saved, may make all the difference between the recovery or death of the patient.

What then shall we first attempt to do? Stop the vomiting? No; but constringe and close the open mouths of the vessels which are pouring the fluids into the stomach and bowels.

FIRST INDICATION.

Stop the Effusion into the Intestinal Canal.—The acetate of lead is one of our most powerful styptics;* and has been more used, especially when combined with opium, in modern practice, for restraining internal hæmorrhages than any other medicine. The dose should be from two to six, or eight grains, according to the urgency of the case with one grain of opium; given immediately after every evacuation—especially if by vomiting. Everything depends on this mode of administering the remedy. Thus given, the stomach being empty it comes in contact with the vessels, and will remain long enough in that organ to have some, perhaps full effect. A single dose given early and in this way, has sometimes stopped the vomiting and

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ed, as might be expected, but little or no epithelium."—*Report on cholera as it appeared at Newcastle, on Tyne. By Drs. Pearse and Marston.*—From this we infer that, "during the latter premonitory stages," the cholera had not actually set in, for the epithelium had not made its appearance; and that, in the "collapsed stage," it (the epithelium) had been all separated and washed away, "as might be expected;" and from this it may be clearly inferred, that there is a difference between the premonitory diarrhœa and cholera, the former being the beneficient harbinger of the latter.

* A saturated solution of the acetate of lead, repeatedly injected into the nostrils is a very certain remedy for epistaxis; it will seldom if ever fail to arrest the hæmorrhage. It is almost equally efficacious in restraining the bleeding or oozing of blood from vessels too small for the ligature.

arrested the disease. This preparation appears to answer all the primary indications; the lead constringes the vessels, while the opium induces the external capillaries to relax, and lessens the sensibility of the internal; eases the pains, allays the cramps and spasms, and controls other inordinate actions; and all are acquainted with its efficacy (which is sometimes rather inconvenient) in suspending the secretions and peristaltic movements of the bowels. In some cases, the lead will not be retained a single minute; then, other stringents, as tannin, must be substituted. The trisnitrate (oxyde) of bismuth is an excellent remedy for staying the vomiting, especially when the matter vomited is blue or greenish. The acid character of the discharges suggested the use of this article. It may be combined with the bicarbonate of potash, which stimulates the kidneys. The trisnitrate, to be effectual, must be given in much larger doses than are generally prescribed. We are in the habit of ordering it in doses of half, two-thirds, or even a tea-spoonful, after each vomiting; and in common diarrhœas accompanied with acidity, the same doses every fourth or sixth hour. In these affections, if acidity be absent, it is of little use. It may be combined with opium, but does not, like the acetate of lead, counteract the narcotic effect of that drug. The diluted sulphuric acid has been much used as an astringent in various kinds of hæmorrhages and especially of late "at the Westminster Hospital in cases of choleraic purging." "Nor is this practice entirely empyrical, for, if this acid acts beneficially in hæmorrhage it may be supposed to act similarly in cholera, the serous discharge of which (to borrow an idea of Sir Henry Marsh) may be called 'a *white blood* hæmorrhage.'" I have used it in no case of cholera; yet from the accounts given by several gentlemen of great respectability in the profession, I have formed a high opinion of its efficacy, and would try it without the least hesitancy, should the treatment herein recommended fail, or not agree. It ought to be given "in half-drachm doses, repeated at short intervals." Dr. Fuller says: "My own conviction is that in sulphuric

acid we have an antidote—a specific—against choleraic diarrhœa," &c. Against this "choleraic diarrhœa," I want no better "specific" than the acetate of lead and opium, for, with the recumbent posture and perfect quietude, it will stop that "diarrhœa" in every instance—often a single dose will do it. The posture and quietude of which we have spoken is essential—sometimes the patient cannot raise his head or even his hand, without causing an effort to vomit or purge.

SECOND INDICATION.

Prevent the Determination of Fluids to the Internal Surfaces.—On account of the vomiting and constant copious flow of serum into the stomach and bowels, it is exceedingly difficult to stop the effusion by the use solely of of internal remedies; recourse must therefore be had to appliances which are calculated to counteract or prevent this inward movement of the fluids. Could this be accomplished, it would of itself answer our first indication. It may however, be effected in part by counter-irritants, as dry heat, dry cupping, etc.

Dry Heat is now more commonly employed in this affection than formerly, and as it induces the vessels on the surface to relax, is a proper remedial agent in this stage of the disease, if judiciously applied.

In times gone by, warmth was communicated by flannels wrung out in hot water, or by steam, raised by means of billets of wood, or hot bricks dipped in water, and laid by the side of the sick, under the bed-clothes, and persisted in until the poor patient was well nigh parboiled. We have some doubts as to this item (none in regard to this mode of practice) of treatment unless prescribed with caution. The warmth at first, should be very gentle, and increased as the patient becomes better pleased and reconciled to it. His body and limbs are icy cold—as if on the point of freezing—the contrast between present feelings and those excited by the application of even gentle warmth, are considerable and often distressing; hence cold is frequently more grateful than warmth. If a member were frozen or severely

chilled, the intelligent physician would commence his treatment by applying snow or ice-water, and not warm or hot water. The algid stage of cholera should be regarded and treated somewhat in the same way—cold or cool water first —then warm, and subsequently dry heat. When a limb is much chilled or frozen, the vessels on the surface and perhaps through the whole member, are in a state of extreme contraction, and the object of making cold applications at first, is to prevent the too rapid relaxation and over-distention which an elevated temperature would certainly incite and induce, and which would be followed by inflammation and mortification; a result very sure to follow when frost-bitten parts are not judiciously treated.

Mutatis Mutandis.—The same holds with regard to the burning sensation at the pit of the stomach of which the patient so uniformly complains, and as uniformly calls for cold drinks to allay; but experience has fully proved that this sensation is more promptly and certainly removed by giving at first warm, and soon hot, and subsequently stimulating drinks.* The warm or rather *hot* drinks, are in the first instance disliked, and sometimes for a season refused, but, ere long, the patient will take them rather than not have any liquid, and beginning to experience the relief which they are calculated on true pathological principles to afford, soon gives them the preference. They should be given by the tea-spoonful in quick succession.

Dry Cupping is the most prompt and effectual method of making counter-irritation. It should be on an extensive scale. Instead of common cupping glasses, tumblers of a large size should be employed. They should be applied to the abdomen and also to other parts of the body, and allowed to remain until they fall off; indeed, several should be kept on all the while, or as much of the time as consists with the

* In 1832 the Thompsonians at first profited largely by this practice, but not having skill enough to treat their cases judiciously in other respects, they failed most signally. I do not know that they succeeded in curing a single patient.

comfort and circumstances of each patient. These act not merely as external irritants, but for the time being hold the fluids as it were in their grasp and prevent their being turned inward, and ultimately discharged from the body; the application should therefore be as early made and as little interrupted as possible.

In the second stage of the disease—we admit but two—the stage of contraction and of relaxation, (usually termed the stages of collapse and excitement) dry cupping may be improper.

The Application of Bands or Ligatures to the Limbs near the Body.—Thus applied, they obstruct the determination of a portion of the fluids to the internal organs, and effectually prevent the further contraction of the capillaries on the surface and in the limbs. They likewise co-operate with the cups in holding a considerable quantity of the fluids in reserve for the support of the vital powers and functions. They will often prevent an ague when applied in anticipation of its attacks; so will several tumblers, applied as cupping-glasses on each side the spine as soon as the patient begins to experience uneasy sensations in the back or loins, or an inclination to yawn.

Stimulating Applications.—As sinapisms, cayenne pepper, blisters, etc., the mustard plaster or poultice is very generally employed, but it is an inconvenient, filthy, unpleasant application—an abomination which seldom, if ever does much good. These appliances are most effectual when they follow the cupping-glasses, but should never interfere to prevent their use. After cupping, a blister is a valuable remedy. Applied to the back of the neck it is useful in preventing or lessening congestion or effusion about the brain, and upper part of the spinal marrow, and should therefore be seldom omitted.

THIRD INDICATION.

Stop Profuse Discharges from the Skin. — When the vomiting and purging have nearly or quite subsided, a cold clammy exudation from the surface commences.

As it respects manner, the internal and external exudations are analogous. In both, the capillaries contract, while the pores remain open, and allow the fluids to escape. To arrest this discharge from the skin, we have to deal with the capillaries themselves as well as with the pores. If, then, the physiological relation between these vessels and their pores or outlets be disturbed (as it is in the hot or cold fit of an ague) the effusion would in neither case happen. To stop this effusion, we must either make the cutaneous capillaries contract (as in the cold fit of an ague) so as to prevent their contents reaching the pores; or cause them, the capillaries, to become so over-distended (as in the hot fit,) that the pores will hold tight, and prevent the egress of those fluids. The first, the effect on the vessels, is produced by the firm application of a bandage to the limbs and trunk which compresses the capillaries, and is probably not without some effect on the pores. The second, the over-distension of the capillaries is accomplished by the application of powerful cups, as described in a former part of this paper. But for the fact that this transudation from the surface does not commence before the internal effusion has nearly or quite ceased, the bandage would be clearly contra-indicated. The bandage tends to stop the effusion; and at the same time forces the fluids inward for the use of the internal organs—the cups cause the capillaries to be over-distended, and so stop perspiration: hence we find the skin comparatively dry when they are removed, especially, if the effect has been powerful; and it remains in that state some time after their removal. The puking and purging may have ceased, yet this profuse out-pouring from the skin, drains the system and finishes what they had left undone; it must therefore, be regarded as a symptom of fearful import. Although not identical with the rice-water discharges, but somewhat analogous to the normal perspiration, it is, therefore, permitted to pass through the natural pores of the skin without requiring, as in the internal discharges, the separation of the cuticle. Whether this be so or not, the

excessive discharge under existing circumstances, is adequate to the destruction of the patient. I have seen it so profuse, as to run in streams; stand in pools in the hollows about the neck, near the clavicles, and drench the patient's clothes and bed-clothes so as to make them wringing wet.

FOURTH INDICATION.

Support the Powers of Life.—Stimulants and cordials in the course of the disease are of immense value,—in most cases necessary—in some, absolutely indispensable.

I take the liberty to recommend a compound, which I have used with great satisfaction in a few cases, and which has been employed at my suggestion by a considerable number of professional friends, who have expressed themselves equally well satisfied with its effects. The following formula, according to my experience, is the best.

℞ . Chloroform,
Tinct. Opii,
Spts. Camp.,
Alcohol ā ā ʒij,
Ol. Cinnam., gtt. 8. ♏.

Dose, from 15 to 30 or 50 drops in a little brandy and water, every five, ten, or fifteen minutes. The frequency and quantity of the dose must depend on the urgency of the symptoms. This compound is very similar to that proposed by Dr. Hartshorne, a distinguished physician of Philadelphia, from whom the hint was taken. I know of no stimulant which is more efficient and grateful to patients—none which more uniformly relieves the sense of weakness and sinking at the epigastrium, which is so frequently experienced in this and most other diseases of exhaustion, as hæmorrhages, etc.

Second Stage, or Stage of Excitement.—The law of the system is, that contraction shall be followed by spontaneous relaxation, which is usually commensurate with the previous contraction.* Obedient to this law, the vessels

* Owing to the frightful drainage of the system, this relaxation, even when it happens in cholera, is seldom in any just proportion to the previous contrac-

on the surface do in some cases of cholera relax, and become filled with blood; when the flush appears and warmth returns. This is the stage of excitement, and hopes of recovery begin to be entertained, and are sometimes realized; but generally the unfortunate patient dies; and why? for two reasons:—1. When the reaction shall have occurred, there will not be blood enough remaining in the vital organs (the heart, lungs, and brain), to enable them to carry on the functions of life.

2. The separation of the serum of the blood from the crassamentum, particularly in the nervous centres, and its effusion into the cavities of the brain, cranium, and spinal canal. * Numerous dissections have most satisfactorily proved the reality of these results. They are, I conceive, quite characteristic of the disease, and serve to explain some of its symptoms:—for instance; may we not infer, that the cramps and spasms in the abdominal muscles and in the limbs are owing to the processes by which these changes are effected—especially in the spinal cord? After awhile, these cramps and spasms cease, because the changes in the spinal marrow, which induced them, have been accomplished—the serum has been separated and poured out, and there is little or nothing left in the capillaries of the cord to maintain the functions of animal life.

Notwithstanding the copiousness of this effusion, there are generally no signs of compression, either of the brain or spinal marrow. The symptoms present, evince feebleness of action in these organs, which has been induced on the

tion, and, from the same cause, it does not in most cases take place at all, and the patients die, as they sometimes do, in the cold stage of intermittent fever.

* This separation and effusion seem to be a part, and parcel of the disease. They have been found in every *post mortem*, I have witnessed; and I am informed by the gentlemen having charge of the cholera-hospitals in this city, (whose experience in this matter is by no means small, and whose zeal cannot be too highly appreciated and commended), that they have made no autopsy in which these phenomena were not present. The effusion varies in quantity;—I have seen it amount to twelve or fourteen ounces.

one hand by emptying their capillaries, and on the other, by filling their veins (which have no valves) with grumous blood. These veins do not perform the function of the parts, but merely act in subserviency to the capillaries which circulate the colorless fluids, and actually do the work of these and of all other organs; but the grumous blood in the veins, unlike the colorless fluids in the capillaries is nearly, if not quite, unfit for any purpose.

The quantity of blood in the veins, and the effused serum in and about the brain and spinal marrow does not probably exceed the normal quantity of those fluids in these organs, but they are separated; and one, the serum, is out of place—extravasated; consequently neither answers the purposes it was designed to answer in the animal economy; these facts afford the reason why there is no compression. Now and then, it is true, a case presents with symptoms of apparent compression, a condition, owing to the vigorous contraction of the capillaries or substance of the brain, &c., which occasions a state somewhat analogous to that "induration of an organ which results from an *ex*pression of its fluid," and consequent gathering together of its constituents.* In consequence of this induration, there may be symptoms resembling those of compression; even convulsions, delirium, &c.

It has been supposed that, if a fluid suited to the demands of the system were injected into the blood-vessels, it might supply the place of that which had been lost, and help to recover the patient; but of this there is little probability; for how is the large quantity of effused fluid which so uniformly occupies the cavities of the arachnoid, of the brain, of the skull at its base, and the spinal canal to be removed? How is the thick, tarry, grumous blood which fills and distends the cerebral veins and vessels elsewhere to be refitted for circulation and use?

* The *medulla spinalis* seems in some instances to be actually lessened in size, which accounts for the possible existence of the great quantity of fluid which we see now and then issuing from the spinal canal during an autopsy.

CONSECUTIVE FEVER.

The transition from the first to the second stage effected, cholera often assumes the form of fever,* which demands an appropriate treatment. Two indications seem to present:—

1. *To equalize the circulation.*
2. *Promote deficient secretions.*

If there be much determination to the brain, (or any other organ) the same course should be pursued as would be proper in analogous cases from other causes; cupping—wet or dry; perhaps a few leeches to the temples, or what is much better to the *septum narium*, cold applications, &c. Dry cupping has always seemed to have a good effect, and is attended with no risk whatever. To produce the full effect, the cups should be large and applied not to the organ itself, but in the vicinity. After the cupping or leeching, blisters may be, and generally speaking should be, applied. Laxatives may be proper; but purging is seldom if ever required. An active purge has not unfrequently turned the scale against the poor patient. An enema of salt and water, if large, will many times answer every purpose, and is much safer than even the laxative.

The James' powder, or pulv. antimonialis, either alone or combined with the Dover's powder, or calomel in small doses, should be given. With the former, in one or two grain doses, calomel acts as a sudorific. As there is a deficiency in the urinary secretion, diuretics may be very judiciously prescribed.

The cause now superadded to the two formerly mentioned (the congested state of the veins and the effusion of serum, in and about the brain and the spinal cord,) which renders the disease so apt to prove ultimately fatal, is the retention

* Respecting this consecutive fever, many medical men think, that opium should be used with great caution in the early stage, in which we have recommended it; but the symptoms, which have given rise to this caution, are produced by the disease, and not by that drug, for we have seen them in cases in which no opium had been given.

of urea in the blood. With a view to its elimination, colchicum in some form or other is a valuable remedy. The acetous extract, we think, the best. The well-known property of this article to promote the secretion of uric acid (which suggested its use in this affection), contributes, as far as it goes, to free the system of this noxious agent. Colchicum also acts as a diuretic, and combined with digitalis, also as an absorbent.

We should continually keep in mind the important fact, that, when the superficial vessels relax, and allow the blood to re-occupy them, (the system having been drained or excessively depleted), there may not be blood enough remaining in the vital organs to sustain their action; consequently it is necessary to restrain or repress entirely for a time this reflux, in order to prevent the extinction of life. Here the tight bandaging again comes into play—not to effect exactly the same purpose, but the same result, for which it was recommended in a former part of this paper. It should be applied to the limbs, from the extremities to the trunk.

Prevention.—Now the prevention of a disease has a direct reference to the predisposition; and also to the predisposing and exciting causes. It is believed that the specific cause of cholera is seldom, if ever, so intensified, as to produce the disease without the concurrence of the predisposition, and the application of an exciting cause. It is then clear if the predisposing and exciting causes be avoided, the disease will certainly be prevented. The causes of this predisposition are bad air, bad food, bad clothing; in general terms, bad living;—over-exertion, fatigue, want of sleep; previous sickness, especially if attended with copious discharges, as diarrhœa, hæmorrhage, &c.; depressing passions, as fear, anxiety, &c., intemperance; indeed, whatever materially interferes with the nutrition of the system. A mere glance at the effects of these causes is sufficient to satisfy any one of their ability and fitness to produce this predisposition; for all must have observed the paleness which follows even

their brief application, and also the emaciation which is sure to succeed, when the application is more persistent. The more stringent the predisposing cause; or the more marked the predisposition, the less powerful need be the exciting cause which ushers in the disease: For instance, when the action of the external and internal vessels is nearly balanced, the predisposition may be said to have reached a point, at which only a very slight additional contraction of the former, or indeed relaxation of the latter, will disturb the equilibrium, and force the fluids inward upon the internal organs; but this will not produce the symptoms of cholera; for it occurs daily in intermittents and other febrile diseases without any such result; all, however, that is wanting to make out the malady, are the serous discharges. In chills and fever these discharges do not occur; in cholera, they do. The specific cause of cholera produces this difference.

PREMONITORY DIARRHŒA.—This premonition we deem of the utmost importance; for unless stopped (which is readily accomplished by the sugar of lead and opium with perfect quietude,) cholera is sure to follow. As stated, we do not consider it a part of the disease.

AUGUST 16th, 1854.

ART. V.—*Cheiloplastic Operation.* By MARK STEPHENSON, M.D., Surgeon to the New York Ophthalmic Hospital.—[With two Engravings.]

PLASTIC operations appear to have been first practiced upon the nose by the priests of India, in the early part of the 15th century; and what is a little remarkable, the process then devised and adopted, is the one (with various modifications) practiced at the present day, and is recognized by modern surgeons as the *Indian method;* which consists in obtaining the flap from some contiguous part, as the forehead, or the cheek.

About the middle of the same century, Tagliacotius, an Italian Surgeon, introduced another method of operating,

which consisted in procuring integument, for repairing the breach from some distant part as the front of the arm or the back of the hand, and was then, as it still is, designated the *Tagliacotian* or *Italian method.*

We have thus seen that Rhinoplasty is of very ancient origin. Cheiloplasty, however, is of more modern date.

The two methods referred to, are applicable either to Rhinoplastic or Cheiloplastic operations.

The Indian method, is the one now more generally approved of, with various modifications; these are:—1. *Twisting* the flap upon its pedicle, and then dividing it, when the ingrafted surfaces are united. 2. *Rotating* the flap without dividing the pedicle. 3. Sliding and stretching the flap without either twisting or rotating it,—the latter is the favorite mode with French Surgeons, and has received the appellation of the "French process." Other modifications are occasionally practiced for the purpose of closing *fissures* in the hard palate;—or *fistulous* openings; the former by *reflecting* the flap, the latter by *rolling* it upon its cutaneous surfaces in such a manner as to answer the purpose of a plug, applicable to fistula after the operation of tracheotomy—the closure of an artificial anus, or the radical cure of hernia after an operation.

In the case about to be described, I adopted the sliding or French process:

B. A., 16 years of age, perfectly healthy, and with the exception of a deformity in the upper lip, a very interesting looking girl.—(Vide drawing No. 1. taken by an excellent artist before the operation.) Accidentally meeting with her at the house of a patient where I was visiting, I was struck with her distorted features, which gave her in some respects an appearance like a dog in the act of snarling.

I asked her if she would allow me to examine her lip; she willingly assented—after carefully exploring the cicatrix, I told her I thought the deformity in her face might be removed by an operation, if she would submit to it. Being just at that peculiar age when young ladies think much of their

personal appearance, she immediately said she would willingly suffer the pain of an operation, if the deformity in her lip could be removed—would consult her parents, and if they gave their consent it should be done.

Accordingly in a few days, herself and father called at my office, and after some deliberate conversation upon the subject, they decided upon having it performed even at the risk of a failure, which I informed them might be the case, but in such an event the deformity would not be likely to be increased. In the history of the case, I learned that when a child, she had typhus fever in a very malignant form, and was very much prostrated with that disease; her lip sphacilated, and left her with this peculiar state of the parts. Whether mercurials had any agency in affecting it, I was unable to learn.

Operation.—In the month of April, 1850, with the aid and council of my esteemed friend, Dr. Alexander E. Hosack, I proceeded with the operation in the presence of Dr. Richard S. Seaman, of this city, the late and lamented Kingsley,

Messrs. Tackaberry & Law—all at that time, students of medicine.

Before commencing the operation I traced the course of the incisions, to be made by dotted lines on the face.

The patient was now seated upon a chair of suitable elevation, with her head supported by Dr. H., who also compressed the facial arteries as they pass over the base of the jaw. The first step in the operation was to remove the old cicatrix, which left a large opening in the lip resembling in some measure an inverted V.

With a small scalpel, I next proceeded to make a new lip after the method of Mons. Serre, of Paris, in the following manner:—

The first incision extended from the ala of the nose in a straight line to near the extremity of the lobe of the ear. Another one was made by commencing the incision at the labial commissure, and extending it to the same length, being parallel with the former.

The integument between the two incisions was then dissected up its entire length, using the greatest caution not to wound the duct of steno. This being done the long narrow flap, owing to its elasticity, admitted of its being drawn forward to the mesian line in the lip, where it was attached by two twisted sutures, one of which was near the vermillion border of the lip, the other near the root of the septum narium. Stitches were also put at the junction of the ala of the nose and flap; also at the angle of the mouth, and at four additional points along the line of incisions at suitable distances. Between these a long strip of adhesive plaster was applied extending from ear to ear, and over these layers of lint with a narrow roller over the whole. Directed an anodyne for the night, with wet lint over the dressings to keep them from becoming hard and stiff. Torsion was requisite to some of the divided arteries for the purpose of arresting the hæmorrhage.

Progress of Union.—The patient suffered some pain during the first twenty-four hours with constitutional disturbance;

was feverish and restless; but, owing to her vigorous and, healthy constitution the wounds healed by the first intention.

On the 4th day I was enabled to take out two of the stitches nearest the ear, on the succeeding day two more, and so on day after day, until all were removed.

Drawing No 2, gives a very good idea of her appearance a few weeks after the parts had united and the wounds healed.

It also gives a correct delineation of the course of the incisions; and the black dots the points where the sutures were made.

The only difficulty which I had to contend with, was the constant tendency there was to adhesion between the flap and the gums. And notwithstanding I took the precaution to introduce pledgets of lint between the raw surface and the gums; yet I was not entirely successful in preventing their union. In other respects it exceeded my expectations and was truly gratifying to the patient and her friends.

Here again I must record my testimony in favor of the use of chloroform, which was given to her while in the erect

position, being much more dangerous than that of the horizontal, the latter being impracticable in this case owing to the danger of strangulating the patient from the flow of blood into the mouth—it, however, was administered with great care and a due admixture of atmospheric air.

167 East 14th street, N. Y.

ART. VI.—*On the Employment of Sulphate of Quinine in Croup.*
By E. MACFARLAN, M.D., of Williamsburg, New York.

IT may appear to some impossible that quinine can subdue inflammation of the larynx and trachea, but the following, cases which were successfully treated by this remedy, must at least make us pause and investigate, before pronouncing against such a valuable agent.

CASE 1.—About six months ago a medical friend, (Dr. Krackowitzer, of Williamsburg), asked me to assist him in the operation of tracheotomy. He stated that his patient, a little boy four years of age, was in the last stage of croup. He had exhausted medical treatment, including the local application of the nitrate of silver. I proposed, before operating, to try quinine, to which he assented. I would here remark that at this time I had not used this remedy in croup, but had determined to do so from observing its effects in other inflammations of the respiratory organs. Here, then, was a case, and a hopeless one. I called with my friend to see the child, and found the little sufferer just able to breathe, and every attempt to do so seemed as if it would be the last. We prescribed quiniæ grs. ij. every two hours. After the second dose, the mother told us, subsequently, that there was a manifest improvement, the skin became moist and cool; and after the third dose, the patient breathed better, and fell into a sleep, in which he remained for several hours, the child not having slept scarcely any for several nights previous.

I saw the patient next day, and it was exceedingly gratifying to find him breathing easy, and sitting up in bed, and disposed to be playful. On the fourth day I saw him flying

a kite about the room. About one week from his recovery he had a second attack, which I think was occasioned by some imprudence on the part of his parents. Dr. K. again tried the quinine for a short time, but the symptoms of suffocation were so alarming that he resolved to abandon medicine, and resort to tracheotomy. The operation was skilfully performed by Dr. K., and the child lived about one month. Dr. K. made a post-mortem examination, and found at the internal orifice of the opening in the trachea a fungous body firmly attached, and large enough to interfere with respiration.

This case gave me great confidence in quinine, and although it was not so much affected by the quinine in the secondary attack, yet there was to my mind sufficient evidence of its power in croup shown on its first administration to warrant a second trial. I accordingly promised myself to use it in the next case that should present itself.

CASE 2.—On the 19th day of Sept. last, I was called in haste to see a sick child. On my arrival at the house, I found a little girl, aged about five years, sitting on her mother's knee; her face was red, skin burning hot, pulse full and bounding, loud sharp cough, respiration quick and difficult, and at every inspiration, the peculiar rasping sound so well known in croup could be distinctly heard; the child spoke in a hoarse whisper. The mother stated that the child had had an attack of croup about three years previously, and was very near dying. I gave the child immediately a full dose of ipecac. which produced free emesis, but had not the slightest effect in allaying the symptoms. Notwithstanding the high fever, I resolved to try quinine. I ordered a grain every hour, but the mother misunderstood me and gave it every half-hour, and a good mistake it proved to be, for on visiting the child about three hours and a half afterwards, I found a decided change for the better; the fever had very much abated; the skin was moist, and in fact the child was perspiring freely; the respiration had much improved, the child could also speak louder. I continued the medicine in

grain doses every hour. I saw the patient again on the next morning about 9 o'clock, and found her sitting up, sewing baby rags. This was a marked case of inflammatory croup; there could be no mistake in the diagnosis; every symptom of the first stage was obvious, the loud cough, the pain in the throat, the hoarse voice, difficult and quick respiration, and the inflamed fauces and tonsils. After the 4th day I discontinued my visits.

CASE 3.—On the 27th of October, I was called to attend a child, aged about eight months. I found a hot and dry skin, respiration quick and difficult, and heard the unmistakeable rasping sound in the child's throat; cough frequent and ringing, fauces and tonsils red. I kept the child a whole day on ipecac. which caused free and frequent emesis, not the least impression was made on the disease—on the contrary, the child was rapidly getting worse. I resolved again to use quinine. I prescribed gr. $\frac{1}{3}$ every half-hour. I visited the patient about 3 hours after the first dose, and discovered a great improvement. Saw the child next morning, and was delighted to find the respiration easy, cough slight, skin cool, and the child playful. The mother stated that the child slept well during the night, and perspired freely. The patient has continued well up to the present time.

In all my cases I use the quinine in solution, and, it will be observed, in full doses; by so doing, a quick and decided impression is made on the disease. I do not urge this mode of treatment as a hobby, but simply desire the profession to receive the statements herein made as facts; and I ask all to try the remedy, feeling (if given according to the method proposed) confident of its success.

CASE 4.—On Feb. 25, 1854, I was called to attend a boy, aged three years. His symptoms were as follows:—Hot and dry skin, full frequent pulse, quick and difficult respiration, loud sharp cough, and hoarseness of voice—so great, that the child was unable to speak above a whisper. The mother had vomited the child freely the night previous, but the child grew worse every hour, and on the morning fol-

lowing she became alarmed and sent for me. I at once prescribed quinine, gr. j. every half-hour. I saw the child three hours afterward, and found a slight improvement; saw him again four hours later, and found a very marked improvement, the skin was moist and the fever slight; the child was sleeping, and the mother stated that he had not slept so much for two days. On visiting the patient next morning, I found but little cough, skin cold, and respiration good; he was sitting up in bed playing with his toys. The boy has continued well from that time. I would here remark, that on the second day I continued the quinine every two hours, and on the third day every three hours, thus keeping up the influence of the quinine. After this I discontinued its use.

Remarks.—I know that many believe the nitrate of silver to be our sheet-anchor in croup; there are also many who consider large doses of calomel as almost a specific; but I would ask the advocates of each of these modes of treatment, how many consecutive cases they can show in their record-books of complete success? I will not presume to assert that quinine will always cure; nor will those who believe in nitrate of silver and calomel; but of the three modes of treatment I would rather take my chance with quinine. My objections to the nitrate of silver, are the extreme difficulty we meet with in getting children to open the mouth, and after we have succeeded in this, the struggles of the child are so great as to prevent the thorough application of the nitrate to the diseased part; and it is particularly difficult to pass the sponge through the rima glotidis. My objections to large doses of calomel are, that hypercatharsis may be induced, and, consequently, erethism of the mucous membrane of both small and large intestines—and, again, the useless and unpleasant results of ptyalism. But some will reply, large doses do not produce constitutional effects. I have met in the course of my practice a number of cases in which a single dose of ten grains have caused profuse ptyalism and ulceration of the mucous membrane of the mouth and fauces.

Now, quinine is a tonic, and in large doses, in inflammation, where there is much vascular excitement, (so far as my observation goes,) acts as a sedative. I conceive that this medicine acts primarily on the nervous system; it is thence reflected upon the vascular; the heart's action is diminished, and the febrile excitement subdued. If we make a tonic impression on the nervous system, then we have gained much, because the nerves of the capillaries being stimulated, act powerfully in inducing contractions of their walls; thereby the capillaries are enabled to contract upon their contents, and thus they are relieved of their distention.

In all the cases of croup I have had or seen under treatment, I have observed a strumous tendency. The first case mentioned in this report was well marked. I am of the opinion that in nine cases out of ten this peculiar condition of the system will be found. This, I believe, is another reason why quinine is beneficial in croup.

ART. VII.—*Report on the Progress of Epidemic Cholera, made to the Society of Statistical Medicine, New York, October*, 1854. By STEPHEN SMITH, M.D.

EARLY in the last year, it was announced that cholera had again sprung up in the East, and had begun its westward march, following very nearly the same route as in its two previous travels over the civilized world, and marking its pathway with the same remorseless and remediless destruction of human life. Judging from its past history, it was very naturally and correctly predicted that it would successively invade the states of Europe, commencing from the East, overrun Great Britain, and extend to the United States. Within a twelvemonth this prediction was fulfilled, and we now witness the close of a wide-spread epidemic of this much-dreaded pestilence.

In tracing the progress of the epidemic from its eastern origin to the western countries, it will be sufficient merely to indicate the date of its appearance at some of the principal

cities, and such facts as may be gathered in regard to it in the different countries where it has prevailed. These facts are gleaned from medical periodicals, and therefore, while generally correct, they have not the authenticity of official reports.

The epidemic cholera of 1854 first appeared at Basorah, a town situated on the Tigris, and at the head of the Persian Gulf, in 1851. From this point it followed the course of the Tigris, and arrived at Bagdad early in 1852. Traversing Kurdistan, it spread over Azenbijan. The mortality at Tauris, the capital, was very great, it being estimated that 1000 persons perished daily. The epidemic continued to spread, and reached Tehran early in 1853, a city of 150,000 souls, of whom more than 15,000 died of this disease.

While the disease was thus invading successively the western cities and countries of Asia, it seems to have broken out in the heart of Europe, in Bohemia, where, during the year 1851, there were 58,121 cases and 23,225 deaths. From this province it traveled to Breslau, which suffered severely from August, 1851, to January, 1852. During the winter months the disease seems to have made little progress; but occasional outbreaks in the western provinces of Asia, and some of the eastern cities of Europe, proved too clearly that its march, though retarded by an unfavorable temperature, was still westward.

Early in the spring of 1852, on the 24th of May, while it was still spreading westward in Asia, the disease suddenly made its appearance in Poland, in the government of Warsaw, and district of Leeradz. It spread in every direction from this point, but without any order or apparent law of progress. In the government of Warsaw, there were 45,328 cases, and 20,906 deaths up to September 5th, 1852. In June, 1852, Kalisch, a town on the Prussian frontier, became a focus from which the disease spread to other Prussian towns, as Ostruvo, Pleschen, and Breslau, which had but just recovered from its previous attack. The disease now favored by the hot weather of summer, spread rapidly over Prussia.

It reached Dantzig, on the Baltic, Aug. 20th, and Nov. 12th, 1853; there had been 953 cases, and 611 deaths. It raged severely in some of the neighboring towns, as at Jungfer where one-eighteenth of the inhabitants were victims. In the government of Posen there were 19,612 cases, and 11,292 deaths. St. Petersburg was visited by the epidemic Oct. 1st, 1852, and to Dec. 1853; there had been 13,861 cases, and 5,609 deaths.

During the following winter, there was again a pause in the progress of cholera, but not an extinction of the disease. On the approach of the hot weather of the succeeding summer, it again commenced its westward march. It spread throughout many of the provinces of Russia, appearing as far north as Archangel, on the White Sea.

It reached Moscow on the south, in Aug. 1853, and traveling westward along the northern shore of the Gulf of Finland, it caused great mortality in the seaport towns.

At Helsingfors (population 19,000) 1,325 cases had occurred up to Aug. 31st, 1853, and 606 deaths. At Abo, still westward, (population 13,500) on Aug. 27th, 1853, there had been 1,027 cases, and 462 deaths; in the neighboring territory, there had been 226 cases, and 109 deaths.

Still farther westward, we find Copenhagen was attacked in July, giving on Sept. 20th, as the total of cases 7,515, and deaths 4,074, (population 125,000.) The principal cities of Sweden and Norway were visited soon after. It was officially announced at Stockholm about the middle of August; and vessels arriving from many of the Russian and Prussian ports were quarantined. The mortality in this city to Sept. 20th (population 90,000) was 1,995 in 3,378 cases. At Carlscrona, (population 12,000) there were 1,859 cases, and 1,006 deaths. Christiana, the capital of Norway, (population 21,000) lost 1,269 in 2,005 cases to the 10th Sept., when it ceased. It appeared at Hamburg on the 28th of July; at Rotterdam on the 23d of August, which had 617 deaths in 1,111 cases. It appeared at Antwerp, Sept. 12th, in a sailor, from Rotterdam, and prevailed to the end of October. At

Brussels, the first case occurred Sept. 14th, and one day later, Sept. 15th, it appeared at Havre, and attacked principally German emigrants from Rotterdam. Amsterdam suffered from the epidemic in November; on the 11th of the same month, it appeared in Paris, where it prevailed mildly during the remainder of the year.

The epidemic made its appearance in England about the 22d of August, 1853, at Liverpool, among German emigrants, just arrived from Hamburg. On the 31st of August, it broke out at Newcastle, and raged with great violence; during twenty-five days there was a mortality of 1,187 (population 65,000). The towns in the immediate neighborhood suffered attacks soon after, and the larger cities, as Manchester, Liverpool, and Sunderland, began to report the presence and progress of the epidemic. Towards the last of September, cases were reported in London, but the disease continued very mild till the 10th of October, when it began to put on more of an epidemic form. The epidemic appeared at Glasgow, Scotland, about the middle of December, and the number of deaths to the 24th of March, was 1,306; it did not prevail very generally, but many of the smaller towns suffered severely. An emigrant ship from Liverpool, bound to New Orleans, put into a port on the island of Nevis, West Indies, Nov. 23d, having cholera on board. The disease soon after spread over the island, causing great mortality.

In November, cholera was reported in this country, at New Orleans. This city had just passed through a most terrible epidemic of yellow fever, which destroyed 15,085 of its inhabitants, and was now doomed to lose 607 more by cholera.

With the approach of winter, cholera began to decline in all parts of Europe, and as early as Nov. 1st it had ceased to exist in many parts where it had prevailed with great fatality. In Russia, Sweden, Norway, Denmark, France, and England, the reports exhibited a most favorable change at this date, and by the close of the year it had entirely ceased to prevail

as an epidemic. This was the close of the third year's progress of epidemic cholera en route to this country.

Although the disease had ceased to prevail as an epidemic, yet, as in the preceding winter, it manifested itself sufficiently frequent to prove that its cessation was rather a hybernation than an extinction. It was very evident that it still lingered in most of the states of Europe; and it was feared, judging from its previous history, that in the summer of 1854 it would be prevalent over the whole continent, and extend to countries yet unvisited. This expectation was fully realized.

Early in the spring of 1854, rumors of the general appearance of cholera in the different cities where it had previously prevailed began to reach us. The cities of Persia suffered severely from this new invasion, Teheran alone losing 11,000 inhabitants. In most of the cities and countries of Europe through which we have traced its progress, it again prevailed, causing a greatly increased mortality. It also spread into new territories, visiting this time many of the cities of Spain and states of Italy previously exempt, and even the Eternal City, where, from its novelty, medical men went about with oiled silk gloves on, so as not to touch the plague stricken. It visited most of the cities on the Mediterranean, the states of Germany, and the countries about the Baltic, assuming in general its most malignant form. In France it spread to most of the provinces and cities during the summer, and up to the present time the total mortality for that country is estimated at 88,626. It is now again on the decline. In Great Britain the epidemic prevailed very generally in the large towns of England, Ireland, and Scotland, during the summer months; but London seems to have escaped a severe visitation until August, when the disease broke out with great severity. It reached its maximum during the last of September, when the number of fatal cases was as high as 1287 per week.

It is impossible at this early period, while the disease is yet on the decline, and few authentic reports of its history in various countries have been published, to give even an

approximate estimate of the general mortality. We shall, therefore, proceed to trace the progress of the epidemic as it appeared in this country.

The introduction of cholera to this country was undoubtedly through the medium of emigrant vessels. The ports at which these ships arrive in the largest numbers would necessarily be the first to exhibit the presence of the disease, and the points of departure in its invasion of the country. Accordingly we find that New Orleans, New York, and Quebec, the ports towards which emigration principally tends, the first to announce in their respective sections of the country the presence of epidemic cholera.

We have already noticed the prevalence of the epidemic at New Orleans during the latter months of 1853. The disease did not entirely subside during the following winter, although many of the cases which occurred were imported. In the spring it gradually spread up the Mississippi, visiting the different cities on this river and its tributaries, and extending widely into the adjacent country. Cases occurred at Memphis, Tenn., among boatmen, about the middle of April, and occasional cases continued to be reported, but the disease did not at any time assume a very severe epidemic form. In the early part of May, cases were admitted to the hospitals of Cincinnati, occurring among boatmen on the river; the disease did not, however, prevail in the city until the last of the month, nor as an epidemic until the middle of June. During this latter month, it prevailed quite generally in Kentucky and Tennessee. About the first of June it appeared at St. Louis, Mo., and towards the latter part of the month assumed a severe epidemic form. This city suffered more than any other in the West from the epidemic, the deaths amounting at one time to upwards of 280 in the week. Richmond, Va., was visited by cholera about the middle of June, and other towns in the South and West having much intercourse with the cities already mentioned as being infected with the disease, reported its prevalence.

Without attempting to define accurately the course and

progress of the epidemic—a thing impossible while relying only upon current literature—such may be considered, in a general way the history of its invasion of this country from the South.

It was previously noticed that cholera was introduced into one of the West India islands, in the latter part of 1853, by an emigrant vessel, on which deaths from cholera had occurred. About the middle of May of the present year, we have accounts of the outbreak of the epidemic at Barbadoes —being imported from Jamaica, and causing a frightful mortality. In the parish of St. Michael, there was a monthly mortality equal to seven and a half per cent. of the population, the total mortality being over 6,000. It also appeared in Mexico, and at the capital of the latter was very fatal, the deaths amounting to 100 per day.

The second point from which to trace the progress of cholera in this country is the city of New York.

During the latter part of the year 1853, in the month of November, no less than twenty-eight vessels came to this port freighted with emigrants, among whom cholera made its appearance during the passage, causing a mortality of 1,141. Although deaths by cholera were reported in this city for every month of the last half of the year 1853, including June, still it did not at any time assume an epidemic form, and these cases could hardly be considered any thing else than the disease exhibited sporadically. The largest number of deaths for one month, was for December, when 12 deaths by cholera were reported.

During the winter months of 1854, emigrant ships continued to arrive at this port in great numbers, many of which suffered severely from cholera. It usually made its appearance two or three days after the vessel had left the foreign harbor, and disappeared as soon as it reached the soundings off this coast; cases were received from these vessels at quarantine which was seldom free for any length of time from emigrants sick of cholera. The monthly report of deaths by this disease in this city, which in December, 1853, reached

12, fell in January, 1854, to 2; in February and March to 1 for each month, while April was entirely exempt. This period corresponded with its decline over all Europe; and cholera might be said to have ceased to exist as an epidemic.

While the report for April exhibited no deaths from cholera in New York, for May, 1 death was again reported, and for June, 206. This large increase in the cholera statistics was due to the arrival in the city of immigrants from vessels on which the disease appeared at sea, and their being subsequently attacked. The inception of the epidemic may be dated about the 1st of June; it reached its maximum about the 1st of August, when there was for the week ending August 5th, 302 deaths. From this date it steadily declined, and for the week ending October 21st, there are reported but 22 deaths by cholera. During this period it prevailed in Brooklyn and neighboring cities with considerable severity.

In Philadelphia, cholera first appeared about the 17th of June, and reached its maximum during the week ending August 5th, the number of deaths for that week by cholera being 88. About the same time, the disease appeared in Boston, where it prevailed mildly up to the 1st of October. In most of the larger seaport towns the disease was reported to be present at different periods subsequently to the middle of June, and many inland cities were also visited by the epidemic at this time. Along all the great routes of travel it appeared during the summer months, but without any very definite law of progression, being governed apparently by the temperature of the weather, the course of emigrants, and the condition of towns where they took up their residence. It was reported at Newark, N. J., Baltimore, Washington, and many intermediate places, in the south; at New Haven, Ct., Providence, R. I., Portland, Me., &c., east; Albany, Troy, Syracuse, Buffalo, &c., west.

In pursuing its course westward, it followed the great routes of emigration, and we are not surprised, considering the rapidity of travel by railroad, to find some of the most

western cities, where emigrants, especially rendezvous, reporting the presence of cholera at as early a date as the Atlantic cities where they first landed. Thus, cases occurred in Chicago among the recently-arrived emigrants as early as the latter part of April, but did not, as in other places, extend to the citizens before the 1st of June, nor become seriously epidemic until July, after which it prevailed with considerable intensity until August, when it began to decline. The first case reported at Detroit was on the 19th of May, but it did not assume an epidemic form until June, when it broke out among recent emigrants, especially those from Holland, who also suffered severely from typhus fever. For the three months, June, July, and August, during which it prevailed as an epidemic, it is estimated that about 1000 died. At Buffalo the first case occurred June 22d, and isolated cases were reported during that month. In July, it became more general, and for August 223 cases were reported; from this time it declined to the end of September, when it disappeared. Other cities previously exempt were attacked after it had subsided in most parts, as Columbia and Pittsburg, Penn., Rochester, N. Y., Fall River, Mass., St. John, N. B., &c., and in many instances it was of a more malignant type than where it appeared early in the season. From these larger cities located upon the great thoroughfares, the epidemic spread widely in every direction, but it principally followed in the train of emigration, and thus reached the most remote settlements of the West.

The third point from which to trace the progress of Cholera is Quebec. During the last year, the number of emigrants arriving by the way of this city, has been greatly increased. The first case of cholera reported, occurred on the 21st of June, among the passengers on board of two emigrant vessels. From this time it prevailed with considerable severity during the summer. The disease was conveyed to Montreal by passengers of the same vessels, as first infected Quebec, and the first case occurred at the former place, soon after its appearance at the latter. It is estimated

that no less than 1300 persons perished at Montreal. From these cities it spread to neighboring towns, and most of the larger places in the Canadas suffered more or less severe attacks during the summer.

As a summary of the prevalence of the cholera in this country, it may be stated that during the spring months it was introduced into all the larger towns by emigrants; that during the summer months it very generally assumed an epidemic form, and with the approach of autumn began to decline in all parts; and by the 1st of October, had ceased to exist as an epidemic, and from most localities had entirely disappeared.

In reviewing briefly the progress of the epidemic cholera of 1854, as above imperfectly sketched, we may notice:

1. That it took its rise, in 1851, in the Southern provinces of Asia, where it is endemic, as in its previous conquests of the world.

2. That it traveled westward, along the great thoroughfares of commerce and emigration, being conveyed from place to place through one of these means. Thus it was conveyed from Bohemia to Breslau; Rotterdam to Antwerp and Havre; Hamburg to Liverpool; Liverpool to the West Indies, New Orleans, New York, and Quebec; and from these latter to every portion of this country.

3. That its actual progress is almost entirely confined to the hot summer months. In the summer of 1851, it spread in Western Asia, and made its appearance in Europe; in 1852, it spread over all Eastern Europe, and wintered in the eastern and southern Baltic provinces; during the hot season of 1853, it reached the western limits of Europe, and made its appearance temporarily in this country; and during the first summer months of 1854, it invaded this country from many points, and spread to the most distant settlements, thus completing its conquest of the civilized world.

Art. VIII.—*Cases reported to the Society of Statistical Medicine, New York.*—(Selected for publication by Committee.)

Two Cases of Bleeding Ulcer, at the Bend of the Elbow, following Venesection—Cured by forcible Extension and Confinement of the Arm in a straight position. By C. R. AGNEW, M.D. Resident Surgeon at the New York City Hospital.

CASE 1.—The first case was that of an unmarried female from the country, aged 19, admitted to the Hospital, March 25th, 1853, under the care of Dr. Cheeseman. While in good health, ten months previously, she had been assaulted by a ruffian, and soon after the shock had been bled from the arm. The incision had never healed and the ulcer had bled since, on the average, an ounce or less daily; its edges had become pouting and elevated, and it had been treated by styptics, escharotics and compression. She had menstruated but once since the injury, and had become anæmic and had occasional hysterical attacks. On admission she was placed upon chalybeates with alœtic purgatives. Shortly after entering the Hospital, upon consultation, an operation for her relief was determined upon, and, accordingly, a crucial incision was made by Dr. Cheeseman, and, after considerable dissection without finding any artero-venous communication or particular bleeding vessel, the arm was extended to the straight position by splints, cold water dressings were applied, and the wound was left to heal by granulation. Subsequent inflammation and unhealthy appearance were relieved by poultices, which were followed by the application of balsam Peru and adhesive strips. Menstruation was soon regularly re-established; the ulcer gradually narrowed to a small point, so as to be nearly healed; and in two months after admission she was discharged.

Two weeks later, part of the cicatrized portion re-ulcerated; the arm became greatly contracted and flexed, and upon a rather forcible effort to extend it the whole cicatrix was torn across.

She was re-admitted to the Hospital, July 31st, 1853, with the arm rigid, and flexed nearly to the shoulder, with the ulcer two inches in length, extending transversely, partly in fissures, nearly around to the olecranon, with no bleeding, but having pouting, indurated edges, considerable swelling, and a puffy unhealthy appearance accompanied by severe paroxysms of pain. It was treated with cold water dressings for nearly a month. The ulcer having now assumed a more healthy appearance, on the 30th of August, under the care of Dr. Watson, the patient was etherized, and the arm forcibly extended with the effect of lacerating the soft parts and extending the ulcer. The

arm was retained in the straight position by splints, and with the exception of the occurrence of bleedings several times from the wound, and an attack of parotitis and facial erysipelas, which were treated by mild antiphlogistics, the patient did well, and the ulcer gradually healed. Seven weeks after the forcible extension, the patient was discharged cured, and remained well at the date of last report, three months after.

CASE 2.—The second case was that of an unmarried female, aged 19, from the same locality as the preceding case; admitted to the Hospital, April 15th, 1853, under the care of Dr. Markoe. A month after venesection at the bend of the arm, by the same physician who bled the other patient, or his partner, the closed cicatrix had re-opened with an elevated ungranulating ulcer indurated at the edges, an inch long and three lines wide, usually bleeding, from a slight stain to three ounces daily, and accompanied by lancinating pains and considerable swelling. Menstruation had been regular, and except slight manifestations of hysteria, the general health had continued good. The ulcer had been treated previous to admission by styptics, escharotics, and semiflexion of the arm.

A week after admission, the operation of dissecting away the ulcer and hardened tissues by an elliptical incision was performed; cold water dressings were applied, and the wound was left to granulate, with the arm supported by splints in the straight position. With only a couple of slight attacks of hæmorrhage, the wound gradually healed. Six weeks after the operation, the patient was discharged, and continued well by report three months afterwards.

The President of the Society, Dr. Watson, having had charge of the first case, remarked that the bleeding was from no particular vessel, but seemed to ooze from the capillaries. On the second admission, the ulcer was so extensive, unhealthy, and painful as to raise the question as to whether it was not malignant; and it was only after the secretion of pus, and a more healthy appearance, that he ventured to operate by laceration and extension.

Linear ulcers of the elbow or groin were apt to be very obstinate, and healed best by paring the edges and giving absolute rest. This last was effected in the above cases by the *extension*. He believed both depended upon a scorbutic tendency of constitution.

It was well-known that in some parts of the country the diet consisted largely of salted meats, bread, and tea. Cases of scurvy were not uncommon. He called to mind several instances of scorbutic bleeding-ulcers on patients from the country. Some years since, a

man from Rockland county had a bleeding ulcer on each arm successively, which was mistaken for Fungus Hæmatodes by a city surgeon, and removed by deep dissection. The mistake was afterwards discovered, and he recovered under the proper treatment for scurvy.

A middle-aged man from the country was admitted to the New York Hospital in 1837, with a bleeding scorbutic ulcer upon the arm, over the biceps muscle. The difficulty recurred twice after superficial dissections, and the patient fell into private hands.

In going the rounds, he was, at last, treated by Dr. A. H. Stevens, with whom Dr. W. was then associated. By a thorough dissection of the cellular tissue and fascia down to the fibres of the muscle, and other suitable treatment, he soon permanently recovered.

Dr. Detmold thought the circumstance of both patients residing in the same locality, worthy of remark. He had noticed lately, in one of the journals, that in a certain district in Germany, the operation of circumcision among the Jews had been followed by unhealthy ulceration, which was at last discovered to be syphilitic. Were there any suspicious circumstances about these cases in the N. Y. Hospital?

Dr. Agnew, in reply, stated, that in answer to a note of enquiry, the physician, in whose practice the cases had occurred, stated that the lancet used was new and clean.

Dr. Peaslee remembered an otherwise healthy man, 70 years of age, formerly under his care, with an obstinate, bleeding ulcer over the scapula, which was at last cured by dissecting the fungous, unhealthy portion completely away, and confining the arm so as to give the parts perfect rest.

Case of Dementia in a Child subject to Epileptic Seizures. By J. G. SEWALL, M.D., *Visiting Physician to the North-western Dispensary.*

This boy, æt. 10, from his mother's account, for the first six months of his life appeared endowed with all that usually belongs to children of that age. He was then attacked with diarrhœa, the dejections being of a greenish hue and accompanied with much pain. For this he was treated, as his mother reports, with large and repeated doses of calomel. As he was recovering from this affection, after a lapse of 4 or 5 weeks, he was seized with a succession of spasms occurring nearly every day for three months, presenting the characteristics of epilepsy, rigidity of the muscles, rolling up of the eyes, &c. At these times he would often put his hands to his head and beat upon it, toss his head back and strike upon the back of his neck with his fists. From

this time forth he seemed to have nothing left to guide him but an inferior kind of instinct. The convulsions occurred more or less frequently up to the age of two years, since which he has had none. Occasionally, however, he has a spasmodic closure of the jaw, with some muscular rigidity, of momentary duration. While an infant, he would be seized at times, with uncontrollable fits of crying, lasting sometimes 12 hours, and would also have immoderate laughter; attacks presenting the characteristics of hysteria.

Since he was six months old, he has never appeared to be possessed of reason, judgment, memory, or any perceptive or reflective faculty. He has never spoken an intelligent word, but moans and cries at times unmeaningly. He has never been known to fix his attention upon any thing, but has a passion for seizing whatever comes within his reach, which when once attained, he throws regardless away without noticing or caring for it. His eyes are ever wandering restlessly about, and never fix themselves upon any thing. At times he would seem to exhibit affection for his mother, but quite as often would he be indifferent to her. As for food, he exhibited a fondness for tea and meats, but was possessed of a morbid wanton appetite, cramming into his mouth such things as it would admit, without noticing what they were. In this way he devoured sticks, grass, paper, ashes, coal, &c. Oftentimes he would tear off the wall paper and thrust it down his throat. He needed constant oversight, being as likely to run into the water as anywhere. He avoided, however, the fire, appearing to have some notion of its hurtful properties. He was never paralytic, though, like all idiots, his movements were singularly awkward.

During an epidemic of dysentery, he fell a victim to the prevailing disease. He had been sick about a week when I first saw him on the 10th of September. His evacuations were always past standing. Much trouble was experienced in treating him, as he was in a state of constant agitation, and seemed averse to taking medicine. It required the undivided attention of one person to keep him in bed. He died on the 13th of September very much emaciated, his discharges for some time previous having become quite natural and much less frequent.

Autopsy 22 hours after death.—Brain.—No alteration in structure or substance could anywhere be detected. It was, however, very much firmer than natural, amounting almost, in some parts, to the consistence of softish liver. There was considerable congestion noticeable, and the whole brain was a shade darker color than is natural. There was considerable fluid within the arachnoid membrane, but very

little was found in the ventricles. No unusual amount of fluid in the chord. *Lungs* and *heart*, *kidneys* and *stomach*, were healthy.

The *large intestines* contained about the cœcum much fæcal matter. The mucous membrane of the first half of colon was dark-red, thickened and softened. It abounded in ragged, shreddy masses, which seemed to depend from it. In last half the redness was greater and more uniformily dark. The slightest touch here separated the mucous from the muscular coat, which everywhere seemed healthy. The mucous membrane of last half of colon was reduced to a red pulpy matter, and and was everywhere so much disorganized, that it seemed to be rather a secretion of the intestine than one of its coats. No where could strips of it be raised of more than a line in length. There were no distinct ulcerations anywhere. The *small intestines* were not examined.

Case of Ascites from Metro-peritonitis, in which there occurred a Spontaneous opening of the Abdominal Parietes, and a free and long-continued Discharge of the Dropsical Effusion. By ELISHA HARRIS, M. H. Physician to the N. Y. Dispensary.

Mrs. F., æt. 40, aborted at the sixth month of her first pregnancy; and, being of a good constitution and in full health, after the third day, she resumed her usual laborious avocation of a laundress, and was thereby often exposed to dampness and the alternations of temperature incident to such labors. About two weeks subsequent to the abortion she began to suffer some pain in the pelvic region; but never had she suffered any pain in that region previously. She soon became obstinately constipated, and suffered much from anorexia, nausea, and general *malaise;* but she did not desist from her labors and exposures. During the fifth week after abortion she first observed that her abdomen was becoming enlarged, but at this time and subsequently she did not suffer any pain. At the beginning of the seventh week she first sought medical advice at the N. Y. Dispensary. Her abdomen was largely distended with fluid, the pulse was feeble, extremities unnaturally cold, the skin pale, urine scanty; her thirst was insatiable, and the appetite capricious and feeble. The uterus and ovaries were greatly enlarged, but not sensitive to the touch or to pressure. The ovaries seemed to be as large as medium-sized lemons, and were hard.

The diagnosis being that there existed *metro-peritonitis*, the patient was put upon appropriate specific treatment and tonics. Still the effusion increased very rapidly, so much so, that on the sixth week

after commencing treatment, I advised her to submit to the operation of paracentesis. She objected. About this period I observed a hernia forming at the umbilicus, which, in the course of ten days, increased to the size of a large orange. A small cutaneous abscess now formed on one side the hernial sack, and on the day it matured the hernial tumor burst, and the fluid flowed very rapidly from the peritoneal cavity, until more than twenty-eight (28) quarts were discharged, twenty-four (24) of which were actually saved in pans for my examination. I was immediately called, and when I arrived, it being nearly two hours after the event, this fluid was found to be coagulated, and was of the consistence of a thin jelly.

The dropsical effusion was nearly all evacuated, and I completed the process by means of a canula and the double roller. The patient was put upon a highly nutritious diet, and allowed the use of quinia and wine thrice daily. The compression was continued, and the opening at the umbilicus continuing patulous, there was discharged daily about a teacupful of lymphy serum. No new symptoms occurred, but the patient gradually sank, and died on the fifth week after the opening and discharge had been established.

No autopsy could be secured, but it is believed that the rapid enlargement of the ovaries and the uterus was not dependent upon carcinomatous disease, but upon simple hypertrophic inflammation. It is a remarkable fact that, even to the last, when the patient was excessively prostrated, the peritoneal effusion continued to be of a highly fibrinous character—so much so, that it coagulated when exposed to the air.

After this spontaneous evacuation of the dropsical fluid had occurred, and a free opening for continued drainage, as well as for the ingress of air, happily established at the umbilicus, the patient manifestly enjoyed all the facilities for recovery that any artificial provisions of the kind could afford; but, in this case, these provisions certainly proved unavailing, though every effort was made to abate the primary disease and sustain the strength of the patient. It should be remarked that the treatment which afforded the greatest relief to the patient, and seemed to produce the most favorable effect upon the disease, as indicated by the amount and the nature of the discharged effusion, consisted of iodide of potassium with quinine and wine during the day, and pill hydrarg. cum opii, at night. As regards the ingress of air to the peritoneal cavity, it unmistakeably excited general and grave peritoneal inflammation; and, though after the second week it was carefully guarded against, it continued to be a source of constantly re-

curring injury to the patient, as the air was necessarily admitted at the daily dressings.

To the writer, this case has been an instructive one in many respects, but particularly as regards the mode which has recently been proposed for the cure of ascites, by means of continued direct drainage, and the introduction of air, &c., into the peritoneal cavity.

Case of Diaphragmitis, with Pleuritic Effusion. By JOHN W. CORSON, M.D. Physician to the N. Y. City Dispensary.

E. C., aged 42, lighterman, strong and muscular, was struck on the 18th of October, 1853, with the boom of a lighter over the edge of the left ribs, or from the seventh rib above and laterally, and from within two inches of the spine posteriorly, downwards and forwards over the floating ribs, and left hypochondrium, producing considerable abrasion, discoloration, and tumefaction, but no fracture of the ribs. He was senseless from the blow for several minutes, and faint and collapsed for two hours. On my reaching him, six hours after the injury, he was just beginning to rally, though the pulse was still somewhat feeble and slow. He complained of occasional severe pain in the region of the diaphragm; sometimes shooting towards the umbilicus, with considerable difficulty of breathing; respiration mainly thoracic. The distress was increased by pressure from the abdomen upwards. Ordered 12 leeches and an anodyne poultice over the bruised ribs; and, to relieve the bowels, previously torpid, and abdominal pain, a brisk purgative of compound jalap powder, ginger and calomel; to be followed by low diet.

19th (2d day).—Much the same. Bowels moved freely towards noon. At five o'clock in the afternoon I was suddenly re-called in great haste, and found him with the knees retracted, the head raised, panting for breath, *with his face completely distorted with the sardonic grin, and screaming at every breath, with pain referred to the region of the diaphragm*, accompanied with a sense of great constriction. Respirations 30, thoracic; pulse, 90, firm. He was promptly bled from the arm from a large orifice, to 24 ounces. He fainted immediately from the bleeding, and several times subsequently, so as to suppose himself dying, with the effect of relieving the terrible pain till the faintness left, when it returned. Ordered two grains of opium and five of Dovers' powder every hour. Having taken about eight grains of opium in three hours, with little soothing effect, with stimulants near, and the finger on the pulse, then somewhat rallied, he was, in the most cautious and gradual manner, allowed to inhale, at

intervals, a mixture of equal parts of ether and chloroform, till in an hour after, the pain was lulled as by magic, and he fell asleep. Ordered soon after two grains each of opium and calomel every 4 hours.

20th (3d day).—No marked dullness over the lower part of left lung discovered on the light tapping that could be borne—loss of motion in the side, probably in part from pain. Respiratory murmur faintly heard; area of dullness enlarged over the spleen; *frequent greenish slimy stools tinged with blood, with dysenteric griping;* tongue with whitish fur; thirsty; pulse 90, compressible; complains of exhaustion with pain; rather severe in the left hypochondrium, sometimes shooting towards the umbilicus. Ordered to discontinue calomel, but continue the opium in two grain doses with morphia suppositories; *and a very large blister* over the left hypochondrium and reaching to the umbilicus; directed to use rice-water and arrowroot with beef-tea.

21st (4th day).—Blister acted "like a charm;" pain was quite gone, allowing a better examination; there was some dullness on percussing the ribs; loss of motion; absence of respiratory murmur; indicating *pleuritic effusion* from the margin of the ribs about four inches upwards; stools rather dysenteric but improving; the urine was reddish and charged with lithates.

22d (5th day).—Passed a couple of large evacuations mostly of dark liquid blood; spleen diminished in size; otherwise the patient was much better. The irritable bowels were quieted with powders of bismuth and opium; the moderate pleuritic effusion yielded in a few days to a succession of blisters, and five grain doses of the iodide of potassium, three times a day in a mixture, with a few drops of camphorated tincture of opium.

From this time, with broths and nourishing diet he steadily improved; and three weeks after the accident, was discharged cured.

Remarks.—Inflammation of the diaphragm is so rare an affection, that any example of it seems worthy of careful study. In this case, to borrow a legal phrase, the evidence was only strongly circumstantial, like that of gastritis nephritis, and other affections of deep-seated organs ending in recovery. Fortunately for the patient, there was no post-mortem as a final test.

The striking early symptoms, of the presence of motion of the thorax in breathing, with its absence in the abdomen, reversing the signs of pleurisy; the existence of the respiratory murmur, on the side affected, faint indeed from pain; and the absence of dullness on percussion; the location of the injury with the diaphragm, as its centre,

and the reference of the first pain to that spot; the terrible severity of the distress exceeding that of ordinary acute pleurisy, and the curious characteristic grin of the face, the true *risus sardonicus* of the old authors—all pointed to the diaphragm, as the seat of the first inflammation. Some of these symptoms, it is true, were subsequently modified by the extension of inflammation upwards, and the limited pleuritic effusion. Other very frequent signs of diaphragmitis were also wanting. The probable limitation of the inflammation to the extreme left portion of the diaphragm might explain the absence of hiccup, as also the vomiting, usually present when that central portion near the stomach is involved.

Delirium, so common in the worse cases, was also wanting; yet a reference to the records of this disease shows that it is not essential. Though subsequently mentioned, it is not enumerated in the definition at the head of the very learned and complete article on the subject by Copland. Boerhaave and some of the older writers have described this variety, under the term Paraphrenitis; but Morgagni distinctly affirms in a case in which it happened to be present (Letter vii, Art. 14,) that he does not "necessarily conjoin a delirium with inflammation of the diaphragm."

The occasional absence of delirium is noticed by Renauldin in his article on Diaphragmite in the *Dict. des Sci. Méd.* A case mentioned by Andral, in which a patient with phthisis was suddenly seized with excruciating pain beneath the left false ribs, who gradually sank without delirium, and on a post-mortem, exhibited a vast cavity, with the diaphragm beneath lined by thick false membrane, through which at last a rupture forming a slit an inch and a half long had occurred, allowing a large quantity of pus to escape into the abdomen.

The most obstinate symptom in our own example above was the excruciating pain, so severe as to resist a dozen leeches, eight grains of opium, and a large bleeding, to repeated fainting,—till at last it yielded to the protracted and very cautious inhalation of *chloroform.* Pain like this, as in peritonitis, has sometimes destroyed life. Such was the conclusion of Andral, in the very interesting first illustration of "Diaphragmatic Pleurisy" in his *Clinique Médicale* A worker in ebony, while engaged in his occupation, was seized with a shivering, followed by excruciating pain in the left hypochondrium, with rapid difficult breathing, agonizing expression, and occasional delirium and other symptoms little relieved by repeated bleedings and leechings till in a few days he sank; and, on examination after death, there were simply found adhesions between the base of the left lung and the diaphragm

with a coating of albuminous exudation—without any more liquid effusion or extension of the disease.

One of the most curious symptoms of diaphragmitis is the *sardonic grin*, which happened to be present in our own case. It was wanting in all the five cases given by Andral, and, indeed, was never seen by him. We were much pleased with the exposition given of the cause of this symptom in one of the discussions of this Society, by Prof. Peaslee—on the authority we believe, of some recent investigations of Lurschka—by which the *risus sardonicus* is attributed to reflex action through the connections which the Phrenic nerve is found to have with nerves supplying the platysma myoides and other superficial muscles.

Were the troublesome dysenteric discharges simply the effect of the drastic purge, irritating the colon; or, was there possibly mechanical injury from the blow across the yielding abdomen?

The case illustrates the frequency with which blows, falls, and sudden shocks are causes in the few instances that occur, of inflammation of the diaphragm. An example is given by Dr. Wheelwright in the sixth volume of the Medico-Chirurgical Transactions, of a seaman who fell from the top of a coach, producing in a few hours terrible pain at the diaphragm, with vomiting of blood, in which, after death, a slit in the diaphragm was found, through which a portion of the stomach protruded. A young mother is mentioned by M. Percy, who ruptured the diaphragm in efforts to suppress labour pains.

In the *Lancet* for June, 1840, a case is related by Dr. Munk, of a man who fell overboard into the river, and was subsequently seized with symptoms of inflammation of the diaphragm, terminating fatally; in which it was found, after death, pressed down, with effusion covered with lymph, and the muscular substance darkened and softened.

The location of the disease in the case we have detailed, depended upon accident.

In a learned work of Dr. Mehliss, entitled "*Die Krankheiten des Zwerchfells des Menschen*," which we perceive, is freely quoted, diaphragmitis, is stated to occur, most frequently, on the left side.

In conclusion, we may briefly remark in reference to the treatment, that the case we have detailed, illustrates the great service chloroform and ether may render in all cases where death is threatened from *pain* alone. Where bleeding and opium fail to relieve, they will doubtless prove valuable in severe cases of peritonitis. The troublesome dysenteric discharges, though interfering with the exhibition of mercury, so useful in inflammation of serous membranes, yet doubtless proved powerfully revulsive, diverting thoracic irritation by abdominal, as pointed out by Dr. Stokes.

Case of a Vesical Calculus, in a Female Child, which Escaped from the Bladder through the Vagina. By STEPHEN SMITH, M.D.

THE subject of this history was a female child, of good constitution, and healthy parentage. She was brought to me about the first of July, 1852, suffering from a slight attack of diarrhœa; she was then two and a half years old. In concluding the history of her case, the mother mentioned incidentally that the child had some difficulty with her water; that she passed it frequently with much pain, and occasionally the urine was tinged with blood. I prescribed for the diarrhœa, and requested her to return with it when it was better of its present complaint.

In about a week she accordingly brought the child again, and I examined it in reference to the dysuria. I learned from her that the child had never been free from complaint in the passage of her water, but had always suffered more or less irritation; that the difficulty had latterly gradually increased, until she came to pass water often and in small quantities, each effort being attended with bearing-down pains, and concluded with violent scratching and tearing of the external genitals with the fingers. These occurred as often as every half-hour during the day, and generally as frequently during the night, on account of which she seldom obtained sound and undisturbed sleep for an hour. When asked where it had the most pain, it always placed its hand over the stomach. She had never exhibited any other signs or symptoms of being troubled with worms, than this irritation about the bladder. Still she had good flesh, and was quite as plump and rotund as children of that age, ate heartily, and digested her food well, and, though never away from her mother to whom she always ran when these attacks came on, she enjoyed her play with other children. Her skin, however, was pallid like anæmia, and her countenance wore a settled expression of irritability. On examination, the external genitals were found excoriated, as also the thighs, from the involuntary escape of urine; but the mucous membrane of the vagina, and the orifice of the urethra were of their natural appearance, and gave no evidence of any local irritation.

The mother was directed to give the child warm hip-baths at night, mild laxatives, and a mixture containing liq. potassæ, tinct. hyosciamus, and nitrous ether. This latter was given for the purpose of correcting any preponderance of lithic acid in the urine, which, by its irritation of the neck of the bladder, might be the cause of the dysuria.

In about a week the child returned, unimproved. The same treatment was continued with the addition of infusion of buchu. This

produced a marked improvement for a short time, when it finally failed to give any relief. An effort was then made to obtain an examination of the urethra and bladder, with reference to the lodgment of a small concretion in the former, or the existence of a calculus in the latter, but the mother refused to allow any force to be used to restrain the child, or the administration of an anæsthetic. No specimen of her water could be obtained for examination, as she passed it in small quantities upon her clothing.

Upon questioning the mother more closely in reference to the presence of ascarides in the rectum, she recollected to have seen upon her night-clothing small bodies, which, from the description she gave, answered very well to these creatures. Failing in obtaining an examination of the bladder to settle the question of the presence of a calculus, in addition to the remedies already in use, the mother was directed to administer injections of lime water.

This had no effect whatever, either in dislodging any thing from the bowel or in relieving the symptoms. After this, she resorted successively to injections of turpentine, solution of common salt, assafætida, etc., at the same time keeping the bowels soluble with aperient medicines. These means were continued until each in turn had a faithful trial. The child gradually grew worse, the paroxysms became more violent and long continued, resembling in their accession labor pains, the patient placing her hands upon her sides and bearing down with all her force, and concluding with tearing the genitals violently with her fingers.

At this time an examinatian of the urethra, with a large probe, was obtained, which only proved that no calculus was lodged in this channel. As the child had not taken an anæsthetic, and resisted violently all efforts at restraint, no satisfactory examination of the bladder could be obtained. In consultation, the question of the existence of calculus was discussed, and considering the sex and age of the patient, the examination that had been made, and the character of the symptoms, it seemed more probable that the source of irritation was in the rectum than in the bladder. The remedies advised were again directed to the removal of worms. The last of these vermifuge medicines employed was santonine, which acted powerfully as a cathartic, but without effecting the desired object. The opinion that the cause of so much vesical irritation could be worms was now abandoned.

Nearly two months had now elapsed since the child first came under observation, and it had grown materially worse. The only treatment which now suggested itself as adapted to the case, was anodynes to

allay the irritation, and such general remedies as the system might require. But no form of anodyne, however employed, whether given internally, by injection, or applied locally, had the slightest effect in preventing the paroxysms of pain, or in diminishing their severity. Still the general health of the patient did not suffer markedly, her appetite continued good, and she did not lose flesh. It was now very evident that these paroxysms of dysuria, which did not cease to recur day or night, and by which alone the life of the little sufferer was being gradually worn out, was due to a calculus in the bladder, and as the parents refused to have any further examination attempted, my attendance was discontinued.

For a time it had no medical attendant. I saw it at intervals, and always found it worse. The mother gave it every variety of medicines that was suggested to her, the most of which were active cathartics. At one time its mouth and fauces were completely covered with aphthous sores, it vomited almost everything that it swallowed, and had a severe diarrhœa. It recovered from this condition readily with mild remedies. Still later, it had convulsions of the most violent kind, commencing with a paroxysm of pain, and terminating when it subsided. These finally ceased to recur, and were followed by a slight prolapsus of the rectum, this continued to increase until it became a very troublesome affair. At this time, about three months after it first came under observation, another physician was called in and the mother ceased to bring the child to me.

It passed in succession under the care of several physicians, in private and public practice, and was variously treated as a case of prolapsus of the rectum, masturbation, etc. The case finally terminated fatally about ten months from the date at which it was first seen, by the escape of a calculus from the posterior, wall of the bladder into the vagina, and through this passage externally. Its escape into the vagina was followed by a fætid discharge from the genital organs, and rapid sinking of the system. It was first discovered by the mother protruding between the labia, and was removed by the physician in attendance. The child sank and died the following day. No examination of the parts was made after death.

The calculus was nearly an inch in length, by half an inch in thickness, being shaped very much like an egg.

Remarks.—In connection with the history of the preceding case, it will not be uninteresting to institute an inquiry into the comparative frequency of calculous disorders in children, and the different methods by which a spontaneous cure may be effected.

The opinion is very generally prevalent that vesical calculi occur *much more* frequently in children than in adults. Systematic writers on the diseases of children, and of the urinary organs, almost without exception, give currency to such views. This opinion seems often to be no more than the repetition of that entertained by a preceding writer, while others give some statistics, as the basis of the assertion. West, one of the most recent and able writers on the diseases of children, remarks, "Although most diseases of the urinary organs are less common in children than in grown persons, yet calculous disorders are far more frequent in early life, than adult age." The data upon which he bases this remark is a statement by Dr. Prout that of 1,256 patients received into Bristol, Leeds, and Norwich Hospitals to be operated on for stone, 500, or nearly 40 per cent., were children under ten years of age. If the age of fifteen is the limit of childhood, physically considered, it is not probable that the number of patients included between ten and fifteen, would increase the per centage to more than fifty, or one-half.

Brodie, in his *Lectures on the Diseases of the Urinary Organs*, referring to the frequency of calculous disorders, says, "You know how large a proportion of hospital patients admitted are children,' and favors the old notion that, among the lower classes, children are much more liable to calculus than adults. Gross does not express an opinion, but in quoting some statistics of Civiale, who maintains this view, he may be considered as endorsing it. The latter author believes that the number of children affected with calculous disorders, is greater than is usually supposed. He found that out of 1881 cases, 1126 occurred in patients under seventeen years of age. These figures give a large preponderence of children over adults.

We think, however, that they are overstated, and that a more general comparison of facts will materially modify the conclusions to which he has arrived. We do not mean to say that children are not equally as liable to be the subjects of calculous diseases as adults, or perhaps somewhat more so, but statistics prove that much depends upon locality, and less upon difference of age, in the prevalence of calculi, than authors generally teach.

The first table which we introduce is from Mr. Hutchinson who instituted a careful inquiry into the frequency of calculous diseases among seamen. His communications on this subject are contained in the *Medico-Chirurg. Transactions*, vol. 9 and vol. 16, and are entitled "*An inquiry into the comparative infrequency of Calculous Diseases among sea-faring people.*"

Places.	Total no. Cases.	Under 14.	Above 14.
Aberdeen Infirmary,	68	13	55
Bristol, "	33	15	18
Dundee " Arbroath,	78	21	57
Edinburgh and Leith,	63	15	48
Glasgow and Greenock Infirm.	32	9	23
Haslar Naval Hospital	2	0	2
Liverpool Infirmary	16	8	8
London Hospital, London,	41	19	22
Newcastle-upon-Tyne Infirmary,	31	0	31
Norfolk and Norwich Hospital,	117	43	74
Plymouth Naval Hospital,	2	0	2
Total.	483	143	340

From this table, which embraces a total of 483 cases, only 143, or less than one-third, were under fourteen. Mr. Hutchinson also incidentally remarks, that it can be shown as the result of his inquiry, that more adults are the subjects of operations for stone than children. It may, however, be objected to his tables, that they were prepared for a different object, and only such hospital records were consulted as concerned seamen.

A comparison of the reports of the civil hospitals of Europe, therefore, will obviate this objection. The accompanying table is prepared from the statistics of operations in such hospitals, and, as they embrace a wide extent of territory, they are most important, as they show clearly how much the frequency of these disorders in different ages is influenced by locality.

	Total.	Under 15.	Proportion under 15.
Norwich,	478	227	Less than $\frac{1}{2}$
Naples,	666	315	" " $\frac{1}{2}$
"	643	321	About $\frac{1}{2}$
St. Petersburgh,	469	357	" $\frac{3}{4}$
Austria,	175	55	Less than $\frac{1}{3}$
Bavaria,	239	116	" " $\frac{1}{2}$
Bohemia,	106	28	More than $\frac{1}{4}$
Denmark,	145	14	Less than $\frac{1}{10}$
Egypt,	42	1	$\frac{1}{42}$
France,	2822	1347	Less than $\frac{1}{2}$
Lombardy,	1058	796	" " $\frac{3}{4}$
Rome,	49	10	Nearly $\frac{1}{5}$
Sardinia,	140	97	Less than $\frac{2}{3}$
Ulm,	127	64	About $\frac{1}{2}$
Total,	7159	3748	More than $\frac{1}{2}$

From this table it appears that out of 7159 cases, 3748 were under 15 years of age, or a very little over one-half. If we examine the report of different hospitals with a view to a critical analysis of the proportion of cases of the two classes, we find that it is only in a few, and those in peculiar localities, that the children exceed the adults.

To show the general immunity of children, from calculous affections, we may refer to the reports of Institutions devoted especially to this class of patients. Thus, during twenty-seven years, 1151 children were admitted into the Foundling Hospital, and for this period there were three cases of stone. In the Asylum at Chelsea, out of 6000 admissions, not one case occurred. At the hospital for children in Paris, where 3000 children are received annually, there were previously to 1842 only four cases on an average. At the St. Marylebone Infirmary where there has been on an average four and five hundred children annually, a case of stone has not occurred in twenty years.

An examination of the Reports of Institutions for children in this country gives similar results. The number of children upon Randall's Island for the year 1850 was 1136, and no case of calculus is reported, the number in 1853 was increased to 2241, and for this year one case of calculus was reported. The *Colored Orphan Asylum* which has on an average nearly two hundred inmates, reports no case of calculus, although Dr. Gross considers colored people peculiarly subject to stone.

We must conclude, therefore, that the opinion that children, as a class, especially among the poorer classes, are *much more* liable to calculous disorders than adults, is not well founded.

Vesical calculi effect a *spontaneous cure*, by escaping from the urethra. This is not infrequent in females, owing to the shortness, size, and distensibility of the urethra, and to this cause, far more than difference of habits, is due the marked exemption of this class from vesical calculus. It is astonishing how large a calculus may pass the female urethra. Dr. Mullineux reports a case in the *Philosophical Transactions*, vol. 17, where a female sixty years of age passed a stone by the urethra, $7\frac{3}{10}$ inches long, and $5\frac{3}{4}$ inches in diameter.

Stones of very large size may pass the male urethra, but more often they become impacted, and give rise to great local trouble. Large stones in the male bladder occasionally undergo spontaneous division, and are then passed off.

Dr. Heister relates a case in the *Philosophical Transactions*, vol. 37, 1731, where a man of sixty, who had long suffered from symptoms of stone, and was accustomed to feel his bladder contract strongly around

the calculus after urination, one day felt the stone break, and afterward voided upward of an hundred irregular calculi at different times, and completely recovered.

Another method of spontaneous cure is by the ulceration of the calculus through the coats of the bladder, and its escape from another outlet as in the case above related, or directly through the perineum. Deschamps, in his *Treatise on Lithotomy*, mentions several cases in which the calculus escaped through the vagina. A case of this kind is reported in the *Medical Gazette*, February 7, 1840. The patient a maiden lady, æt. fifty-six, had experienced dysuria two years, when the urine began to escape from the vagina, mixed with pus. The disease was mistaken for cancer of the womb, and the stone which finally became visible, covered with a whitish membrane, was allowed to remain just within the external organs nine months, under the belief that it was cancer. She recovered with a vesico-vaginal fistula. A case occurred recently in one of the London Hospitals.

A more remarkable method of spontaneous cure in the female is in the passage of the stone through the vagina into the rectum, and finally escaping from the anus. A case of this kind is related in *Phil. Trans.*, vol. 41, 1740, by Mr. Macharness. A female, æt. 31, had children in rapid succession, but, after each labor, she suffered much from fever. Every child was noticed to have a dent upon the left side of the head, above the temple. Her two last children were still-born, though they were alive just previous to birth. Her symptoms at length grew more serious, she had pain in the back, loins, and bladder, obstinate costiveness, and passage of flattened fæces. These symptoms continued several months, when her urine became fœtid and contained pus. The catheter detected a tumor, but not a stone, upon one side of the bladder. Finally, pus ceased to flow in the urine, but made its appearance from the vagina like leucorrhœa; pain was constant and very severe. The pus finally ceased to flow from the vagina, and began to discharge from the anus. She experienced weight, pain, etc., in this region, and emaciated from her constant suffering. At length, while straining at stool, she felt a hard substance protruding from the anus. The surgeon was called, and removed a large ragged stone, weighing $8\frac{1}{2}$ ounces, and being $10\frac{1}{2}$ inches in circumference. She rapidly recovered.

When the stone ulcerates its way out of the bladder in females, it is more likely to pass throngh into the rectum than to escape from the vagina, owing to the construction of the sphincter-vaginæ, and the culde-sac into which it falls.

When the stone escapes by ulceration in the male, it may pass from the perineum, scrotum, or even the thigh. M. Louis has related many cases of this kind, in the *Mém. Acad. Surg.*, vol. 3, in an article:—*Sur les Pierres urinaires formées hors des voies naturelles de l' Urine.*

ART. IX.—*Mortuary Statistics of the "Genesee Country," for the year 1799. Communicated.* By A. WILLARD, M.D., of Greene, N. Y.

[WE feel assured that the following curious document is not without interest to the medical historian, or general reader. The following account of it we copy from a paper of Dr. W.'s, in vol. 10, *Old Series*, of this Journal. "The paper was handed to me by Mr. Cameron, an old gentleman residing in this place, (Greene, N. Y.—*Ed.*) who was at the time an Assessor of one of the towns, and engaged in getting up the statistics. It was done by the direction, and at the expense of Charles Williamson, Esq., agent of the Pultney estate, for the purpose of showing the health of the county; as a report had got abroad, that it was very unhealthy. The county of Ontario, at the date of this document, comprehended the whole of the State west of the pre-emption line, which was a line drawn from Sodus Bay, on Lake Ontario, southerly through, or nearly through Seneca Lake, about a mile east of Geneva, to Pennsylvania line, with the exception of the county of Steuben, which had been erected the year previously. Several of the towns named in the paper, do not now exist; and I have endeavored, so far as I am able, to note some of the towns which now occupy their places. I may be mistaken in some instances, but I believe I am pretty generally correct."

The settlement of the "Genesee Country" may be said to have begun in 1791, and to have been, in a measure, completed in 1806. During this period, few of the settlers escaped "a seasoning;" and "endemic fever," or, as it was more generally called, "Lake fever," made sad havoc with the health, and not unfrequently with the lives, of the inhabitants. Dr. Alexander Coventry, in his annual address before the New York State Medical Society, in 1824, has given us a history of this fever—the disease which gave rise to the report of the unhealthy character of the country. The matter of the tables, Dr. Willard informs us, is copied verbatim et literatim.—*Eds.*]

A Register of the Free Inhabitants in the Several Towns Comprehending the County of Ontario, in the Genesee Country, estimated and certified by the Supervisors and Assessors of the respective Towns or Districts from their assessments, taken in April, 1799, *together with number of Deaths in each Town, within the compass of the year* 1799. Ontario County, January, 1800.

NAMES OF TOWNS OR DISTRICTS.	Number of Inhabitants.	No. of Deaths			BY WHOM CERTIFIED.
		Adults.	Infants	Total.	
Canandaigua	800	4	6	10	Abner Barlow, Supervisor, Luther Cole, Hugh Jameson } Assessors of Canandaigua.
Easton, [now, Hopedale and Gorham]	364	1	--	1	Daniel Gates, Supervisor, Elijah Murray, James Austin, } Assessors of Easton.
Middletown, [now Naples]	226	--	--	--	Jabez Metcalf, Supervisor of Middleton.
Bloomfield	1836	1	2	3	Ebenezer Curtis, Supervisor of Bloomfield.
Palmyra	804	3	1	4	John Swift, Supervisor, John Hurlburt, Thomas Goldsmith, } Assessors of Palmyra.
Charleston, [now Lima]	600	3	2	5	Solomon Hooey, Supervisor, William Williams, Zebulon Norton, Asahel Warner, } Assessors of Charleston Samuel Stephens, Physician.
Genesee, [now Geneseo]	354	3	3	6	Wm. Wadsworth, Supervisor of Genesee.
Bristol	583	1	3	4	William Goodwin, Supervisor, Nathaniel Fisher, Elisha Parrish, Faunce Coddings, } Assessors of Bristol.
Pittstown, [now Richmond and Honeysye]	336	--	--	--	Lemuel Chipman, Super. of Pittstown. Cyrus Chipman, M.D.
Phelps	----	--	--	--	Joel Prescott, Supervisor, Philetus Swift, Foster Barned, } Assessors of Phelps.
Northfield, [now Pittsford and Penfield, &c.]	356	--	--	9	Josiah Fish, Supervisor, Noah Norton, Nathan Nye, Alex. Dun, } Assessors of Northfield.
Augusta, [now Middlesex]	371	1	--	1	David Southland, Supervisor, M. Pierce, William Houlten, } Assessors of Augusta.
Northampton, [now Rochester and West of it]	696	7	2	9	Josiah Fish, Supervisor of Northampton.
Farmington	400	--	--	2	Otis Comstock, Supervisor, Asa Wilmarth, Assessor of Farmington.
Sodus	189	--	1	1	Charles Cameron, Samuel Coldwell, } Assessors of Sodus.
Jerusalem	1320	8	3	11	Eliphelet Norris, Supervisor, Thomas Lee, Assessor of Jerusalem.
Hartford	450	5	4	9	Ebenezer Merry, Supervisor, Job Peine, Benj. Pearsons, Jno. Beace, Nath. Naramon, } Ass'rs. of Hartford.
Sparta	360	--	--	--	William Harris, Supervisor, John Smith, Assessor of Sparta.
Seneca	1248	2	7	9	Samuel Colt, Supervisor, Thomas Powell, Assessor of Seneca.
Total	12200	39	34	84	

ONTARIO COUNTY, ss.

WILLIAM SHEPHERD, being duly sworn, saith, That the persons named in the

DISEASES.

One with a Puerperal Fever. A child of Hydrocephalus Internus. An infant of a Suffocatio Stridula. An adult with a Billious Remitting Fever. An infant of an Intermitting Fever with Diarihea. An infant with excess of stimulas. An adult of a Phthesis Pulmonalis. An adult of a Billious Fever. An infant of an Intermitting Fever. An infant of Diarihea.

One, aged 60, of Nephaites.

One, 70 years of age, of an Intermitting Fever. An Infant with a Swelling on the Throat. An Infant 10 months old, never well.

A person 40 years of age, from a Hurt in the Breast which caused an Ulceration in the Vitals. One adult, by the fall of a tree in a storm. One of a Puerperal Fever. An infant of a Cholick.

(Diseases not mentioned.)

One person 60 years of age. A middle-aged person of Billious Fever. Three infants with diseases which are natural to infancy.

One infant burnt to death with fire. The diseases of the other not mentioned.

An adult of a Consumption. One adult from a Mortification, proceeding from old wounds. One adult of an Intermitting Fever, aged 75 years. The infants with disorders natural to infancy.

The number of adults or infants not specified, nor diseases mentioned.

70 years of age, with a consumption of 20 years.

Four of a Billious Intermitting Fever. Two of a Puerperal Fever. One with a Cancer. Two with diseases natural to infancy.

Diseases not mentioned

Of a Billious Fever.

Two of a Puerperal Fever. One of a Hychops, 55 years of age. Two, aged 75 and 60, of Consumption. One of a Putrid Fever, 65 years of age. One, aged 25 years, Remitting Fever. An infant of a Dysentery. An infant one day old. An infant of a Tymphanum. An adult, disease not mentioned.

Four, of a Billious Intermitting Fever. 1 of a Hychops. Puerperal Fever. 1 of Pulmonalis. One with the Rattles.

One, aged 17 years, of a Phthesis Pulmonalis. One, aged 67 years, of an Anascarea Debilium. One child, aged 2 years, of a Schoopula. Five infants, Crup and Convulsions.

above Register, are the Supervisors and Assessors for the several Districts in the County of Ontario. WILLIAM SHEPHERD.

SWORN before me, one of the Justices of the Peace for the County of Ontario, this 29th day of January, 1800. } JAMES ROES.

I consider this table, whatever others may do, as a matter of curiosity and interest also, inasmuch as it gives us the comparative mortality in the early settlement of the Genesee county, now—at least a good share of it—the most thrifty and densely-populated part of the State. Let us see—in January 1800, the whole population, exclusive of the native tribes, was 12,000, and the whole number of deaths in the compass of the year 1799 was only 84. Deducting 922, the number of inhabitants in these towns in which the number of deaths is not stated, from 12,000 and it leaves 11,278, which give us only one death to every 134·26 inhabitants, nearly—only 18 of idiopathic fever—not one in 500—making a pretty small ratio.* By the way, ten years previous to this, in 1790, there were only 1,075 inhabitants in the same territory, including also the present county of Steuben. The territory comprised in the county of Ontario, in 1800, and to which reference is had in "The Register," now consists of the following counties, viz: Ontario, Alleghany, Cattaraugus, Chatauque, Erie, Niagara, Genesee, Wyoming, Orleans, Monroe, Livingston, Yates, and about half or two-thirds of Wayne. These counties, including half of Wayne, contained, according to the United States Census, of 1850, a population of 574,234, making an average increase of 11,240 per year. The number of deaths in this territory during the year ending, June 1, 1850, were 7,277, making one death for every 78·5, nearly—a pretty long stride towards twice as many deaths for an equal number of inhabitants as 50 years previously, when the country was thought to be unhealthy.

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* If the Register intends to show that there were no deaths in the three towns in which none are mentioned, and which may be possible, then the ratio will be only one to 145 inhabitants, nearly.

PART SECOND.

CRITICAL ANALYSIS.

ART. X.—*The Pathology and Treatment of Stricture of the Urethra, both in the Male and Female, being the Treatise for which the Jacksonian Prize for the year* 1852 *was awarded by the College of Surgeons of England.* By HENRY THOMPSON, M.B. pp. 424, with plates. London: Churchill, 1854.

Traité Pratique des Retrécissements du Canal de l' Urètre par M. le Dr. F. Reybard. Ouvrage couronné par l'Académie impériale de médecine qui lui a decerné en 1852 *le grand prix d'Argenteuil* (12 *mille. Fr.*) pp. 600, with plates. Paris, 1853.

A Practical Treatise on Strictures of the Urethra. By Dr. F. REYBARD. To which the Argenteuil prize (12,000 francs) was awarded by the Royal Academy of Medicine (Paris) in 1852.

THE circumstances under which the volumes before us have been produced cannot but excite a favorable bias in the mind of the reader. The "Jacksonian" Prize Essays have been too long known to require any explanation at the present day, but the nature of the Argenteuil prize to many may not be so familiar. If we mistake not, this is the second treatise to which it has been awarded. In 1838, the Marquis d'Argenteuil left, by will, to the Royal Academy of Medicine, the sum of 30,000 francs, the accumulated revenue of which, every six years, was to be granted to the author of the most important improvement, introduced during that period in the treatment of the stricture of the urethra; or, no essay appearing upon the subject worthy the prize, it might be given to the author of the most important treatment of other diseases of the urinary organs. No less than twenty-seven competitors enlisted for the prize of 1844, and a commission, composed of MM. Jobert, Amussat, Villeneuve, Bèrard, Lagneau, Begin, Ségalas, Civiale and Jourdan, after devoting a year to the examination of the numerous

memoirs presented, adjudged the prize to Dr. Leroy D'Etiolles. The adjudicators in the present instance were MM. Bouvier, Gerdy, Grisolle, Hugier, Larrey, Laugier, Ricord, Robert, and Roux but lately deceased.

Mr. Thompson devotes forty-eight pages, and M. Reybard forty-three pages, to the anatomy and physiology of the urethra. The microscope has settled the question as to the muscularity of the urethra, and demonstrated beyond dispute that throughout its whole course it is surrounded by muscular tissue of the involuntary kind, like that which enters into the structure of the bladder, air-tubes, and intestines. Mr. Thompson gives to Kölliker, of Würtzburg, the credit of first publishing the fact of their existence, though the contemporaneous microscopical investigations of Mr. Hancock, of the Charing Cross Hospital, as he himself admits, were made in total unconsciousness of those of of the German anatomist. It is a singular fact, of which we have been personally assured by Mr. Hancock, that the muscular fibres are most easily detected in the fœtus, for we should naturally expect that they would be most fully developed in the adult. We have not space to dwell upon this important discovery which explains many points connected with the pathology of strictures, but cannot too warmly recommend Mr. Hancock's small volume on "*Strictures of the Urethra*," published in 1852. As we have stated, Kölliker is entitled to priority in the *publication* of his discoveries, and the date of Mr. Hancock's first paper upon the subject is February, 1851. This was read before the Medical Society of London, and his Lettsomian lecture before the same body in 1852, which contains a fuller exposition of his views, was published in the "London Lancet" for February 21, 1852; and it is to be hoped, though it can by no means be regarded as probable, that the results of the investigations of Mr. Hancock and Kölliker may become known to the competitors for the Argenteuil prize of 1848! Sure we are, that we can find no trace of such knowledge in the treatise of M. Reybard. True, he infers the existence of muscularity in the urethra, from certain phenomena which occasionally occur during the introduction of a sound or catheter; but modern science rests not satisfied with *inferential* evidence, and in no point of view does Mr. Thompson's description of the anatomy and physiology of the urethra exhibit its superiority more strikingly than in the faithful account which he has given of our *actual* knowledge upon the subject. In this respect, M. Reybard falls immeasurably behind the English surgeon.

After a full examination of the proofs of the muscularity of the urethra, Mr. Thompson concludes:

1. That the entire urethral canal; or, at all events, the membranous and spongy portions of it, may be contracted in calibre or closed by approximation of its sides through the agency of muscular structures which surround it, in obedience to an effort of the will.

2. That contraction of the urethra may be the result of a purely reflex act, uncontrollable by the will, and of a character differing from that of the voluntary contractions before described as relating to micturition.

There is no proof, says Mr. Thompson, so good as personal experience; and whoever wishes to be furnished with a striking example of the reflex contractions which are wont to occur throughout the whole canal, need but introduce a catheter into his own urethra, when he will soon become conscious, especially during its removal, of the great contractile and expulsive force called into play by every portion of the canal. "It is an experiment worth the trying, and I hold that no man should attempt the passage of a catheter on the person of a patient, who has not first tried its effect upon himself." p. 33.

Chapter II. of Mr. Thompson's work is devoted to the "Classification and Pathology of Strictures of the Urethra." About forty pages are filled with the discussion of these topics. He thus expresses himself in relation to the existence of spasmodic stricture. "Examples of pure spasmodic stricture are, without doubt, very rare; still the influence of muscular action upon the urethra being very great, it is very important to recognize it in diseased conditions of the organ, since it commonly supervenes upon and complicates most of them. Indeed, neither organic nor inflammatory narrowing of the urethra can be well imagined to occur without the co-existence, at some time or another, of spasmodic action to some extent in the muscular tissues around." Under the terms *organic* and *permanent* strictures he includes all contractions of the urethra, which are the result of some appreciable organic alteration in the structure of the parts involved, excepting that which is due to, and concurrent with, an acute inflammation, capable of undergoing complete resolution, not necessarily followed by any *permanent* narrowing of the canal.

To those who would object to this classification, on the ground that *inflammation* is not admitted to rank among *organic* changes, he remarks: "The answer is sufficiently obvious. Our language does not furnish us with a single term embracing the co-existence of two ideas, both necessary to describe the class of lesions under consideration; the one of organic change, as contrasted with that we call functional; the other, that its especial character is permanency, *i.e.*, in-

abilty to bring about its own resolution and cure by the working of any naturally inherent power; this being the rule, beyond all question, with regard to the strictures now under consideration; it being further understood that the absolute impossibility of an exception is not affirmed."

"Acute inflammation narrows the canal for a time; but the great majority of inflammatory attacks under favorable circumstances leave the calibre of the canal as they found it. Acute inflammation, *per se*, is rarely a cause of *permanent* stricture; it is the subsequent persistence of the chronic form which is the great agent in its production. On these grounds, I should unquestionably be compelled on all occasions to use the two words, *organic* and *permanent* in combination, were it not conceived legitimate to employ either of them alone for the sake of brevity, having first stated that the other is always to be regarded as implied or understood."

The views of M. Reybard coincide with those of Mr. Thompson upon this point, and with him he excludes the inflammatory from the list of organic strictures. The latter form he defines as a permanent and progressive diminution of the diameter of the canal, produced by the gradual contraction of a morbid tissue which occupies a greater or less extent of the walls of the urethra, the immediate effect of which is more or less to obstruct the flow of the urine.

In view of the discrepancy of opinions as to the locality of stricture, after recording and analyzing "the statements of those whose authority is most to be relied upon," Mr. Thompson observes: "With one exception, all the authorities quoted nearly agree in one particular; viz., that stricture is most commonly found at the junction of the bulb with the membranous portion, or within a short distance of it, in either an anterior or posterior direction. My own examination has included a very large number (not less than three hundred) of cases. . . . These observations lead me to coincide, beyond all doubt, with the opinions just quoted, which assign the first place, in relation to frequency of occurrence, to the stricture which occurs at the posterior limit of the spongy portion of the urethra."

He asserts that no case of stricture in the prostatic portion of the urethra is to be found in any of the public museums of London, Edinburgh, or Paris, and that the evidence of their existence would appear to rest solely on the observations of MM. Leroy d'Etiolles and Ricord. Its excessive rarity, to say the least, he considers as demonstrated.

M. Reybard, after referring to cases observed by Sir Everard Home,

Sir Charles Bell, Sir Astley Cooper, and Lallemand, remarks, (p. 1540 that he has himself seen a case which was caused by suppuration in the prostate, and an abscess which opened in the rectum.

Chapter III. of Mr. Thompson's work, embraces the consideration of the symptoms and pathological effects of organic stricture. Of the fifteen pages devoted to this subject, we can only extract the following: "The earliest symptom usually noticed by the patient is a little gleety discharge, almost constantly present in greater or less quantity. Some uneasiness is felt, or it may be occasional pricking pain in some part of the course of the urethra, or a little smarting when the urine passes over it in micturition, but varying in intensity.

"The stream is somewhat altered in form, not having the full rounded character of health, but more or less flattened; it may be twisted, spirting, forked, or even divided, which conditions are caused by the current of water being insufficient in size and force to dilate and extend the lips of the meatus externus, so that the fissure-like form of that opening modifies the stream; and if its momentum be insufficient to separate each lip from the other, the urine issues above and below, so that two small streams are produced instead of one.

"Many persons, from a tumid condition of the meatus alone, habitually pass such an one, hence it must not be concluded that the existence of such a stream is, *per se*, a proof that stricture exists."

We cannot dwell upon his description of the *local* symptoms of stricture, nor the sympathetic disorders to which this affection may give rise. We quote the following remarks in reference to neuralgic pains which sometimes co-exist with the disorder: "Pains, apparently unconnected in any way with the seat of the disorder, are occasionally found to be co-existent with stricture; thus, pain in the sole of the foot, long complained of, may be referred sometimes to this cause, and has even led to the discovery of the urethral lesion. Neuralgic affections of the thighs, and of other parts of the body, sometimes appear to have a similar connection with it. I have known such to be treated for a long period without success, until the calibre of the urethra being restored, they have simultaneously disappeared."

Mr. Thompson's observations, under the head of the pathological effects of stricture, are far more extensive than those of the French author, who alludes but briefly to the class of sympathetic affections to which we have just referred.

Causes.—Passing over the agency of other causes which have been accused of producing stricture, we find Mr. Thompson thus expressing himself as to the influence of gonorrhœa: "It is the prolonged exist-

ence of a sub-acute inflammation in the median and posterior parts of the canal, which, as a sequence of gonorrhœa, rather than the primary disease itself, causes the exudation of that deposit in and beneath the mucous membrane, which, by its subsequent contraction, so commonly produces stricture."

Among the traumatic causes, M. Reybard asserts, that from experiments instituted by himself, he is authorised in stating that circular divisions of the urethra, and perpendicular to its axis, invariably give rise to organic strictures, but longitudinal wounds, on the contrary, are far from producing this result. For this reason, he believes, that the button-hole incision, and other proceedings of urethrotomy, are wrongly accused of themselves leading to a contraction of the canal. We shall have occasion to refer to this matter again in speaking of Professor Syme's operation, for certain forms of stricture.

Diagnosis.—Mr. Thompson devotes more than twenty pages to the consideration of the nature of those strictures which are only of transient duration, but we must proceed to the more practical part of the subject, viz., the diagnosis and treatment of stricture. A positive diagnosis can, of course, be established only by the passage of an instrument along the urethra, and of all the various forms recommended for this purpose, Mr. Thompson gives his preference to the inflexible and solid. He is accustomed to employ a curved, solid, silver sound, or, what is much cheaper and almost equally useful, a well-polished steel one, and silver-plated, the chief advantage of the silver being that it permits slight alteration to be made in its form, for special cases, without sustaining injury. A proper curve should be given to it. Those usually found at the makers, describe, as nearly as possible, arcs of circles, varying from four to four and a half inches in diameter, and, what is worse, in some cases, the last inch of the sound is scarcely flexed at all, but forms a straight line at the end of the curve. An instrument of this shape is totally unfitted to traverse the urethra with ease and safety. "Were it necessary to construct a sound or catheter upon *à priori* principles, we should naturally, as it appears to me, adapt its curve to that of the least movable portion of the urethra itself. In the anatomical part of this work, this was shown to be equal to a portion of the circumferential line, equal to about three-tenths of a circle three inches and a quarter in diameter."

Mr. Thompson gives us many useful hints in reference to the construction of catheters, and illustrations are added to make his views more intelligible. But our space will not permit us to dwell upon these topics, and we proceed in the next place to consider the treatment of stricture.

Treatment.—Here we have two indications: first, to restore the natural calibre of the canal; and, secondly, to maintain this condition of the canal. The means employed may be included under the heads of dilatation, chemical agency, and incision. Dilatation is accomplished by bougies of wax, plaster, catgut, softened ivory, gum elastic, or of metal, and the latter may be either flexible or inflexible. In addition to solid cylindrical instruments, we have those of a hollow form, such as catheters, tubes made to slide one over another, like those invented by Mr. Wakley, or dilating instruments like those devised by M. Perreve, and improved by Mr. Barnard Holt, of the Westminster Hospital, London. Then, there are the flaccid tubes, which may be distended, as proposed by Mr. Arnott, with air or water. The question of force in the use of dilatation is thus disposed of by Mr. Thompson:

"*First.*—When any degree of force is required, it may only be made *after the point of the instrument has well and fully entered the stricture*, so that the operator is assured that it is in the right track. Force is never to be employed in order to *make a way into it.*

Secondly.—It is then to be increased very gradually, first trying one uniform rate of forcible pressure for two or three minutes before proceeding to increase it, and when it is found necessary to do so, the increase must be continued in the same manner for a similar length of time. It is not to be accomplished by pressing onwards with more and more violence until something gives way. This is never legitimate.

Thirdly.—Complete knowledge of the anatomy of the passage, some acquaintance with its diseased conditions, also, and long experience in the use of instruments in it, are the indispensable qualifications of the operator, to whom the use of force is permitted."

Forced dilatation finds but little favor with M. Reybard. He admits, however, that it may sometimes be used with advantage, as employed by Mayor, after the obstruction has been, to a certain extent, overcome, by dilatation or urethrotomy.

Rapid dilatation has been highly eulogised by Lallemand, MM. Chrêtien, Pirondi, Velpeau, and Benique. Professor Eve, of Nashville, published in the Nashville *Journal of Medicine and Surgery*, for June, 1853, a memoir on the treatment of stricture of the urethra, in which he warmly advocates this method. The views of Mr. Thompson may be ascertained by the following extract:

"Great mischief may very easily be done by rapid dilatation on any method, a proceeding, the exercise of which, has been sufficiently reprobated. The semi-elastic constituents of a stricture must be gradually

dilated, if an efficient result is to be attained. Inflammation of the urethra and bladder, which, in patients laboring under chronic disease of the kidneys, may readily extend to these organs and be followed by fatal consequences, has been not unfrequently induced by neglecting this rule."

Even slight lesions of the urethra may give rise to phlebitis, or purulent infection. Mr. Coulson, of St. Mary's Hospital, London, has reported in the London *Lancet*, 1852, vol. 1, p. 562, twelve cases in which such results were produced by laceration following the use of sounds and lithotrites. In four of these cases, dilatation was employed for the removal of organic stricture. Mr. Thompson states that he has witnessed two cases of a similar nature, and he remarks that it is an instructive fact in almost all of these examples, the effects in question have followed efforts to dilate the urethra, which have been carried to a considerable extent.

Mr. T. remarks that he should "infinitely prefer a plain sound" to the instruments recommended by M. Perreve, Mr. Barnard Holt, and Mr. Wakley, as it is manifest that in very narrow strictures they cannot be rendered available. Professor Gross, in his admirable treatise on the urinary organs, states that he is satisfied from ample experience that the very best instrument for dilating a stricture, is the common silver catheter, with a slightly conical point. Mr. Fergusson, of King's College Hospital, gives the preference to the bougie and generally employs the plated steel rod, or a silver tube. Sir Benjamin Brodie employs the common plaster bougie, as well as those made of solid silver. Sometimes he uses the gum catheter, which he allows to remain day and night. This gives rise to suppuration, after which a large sized instrument may be introduced. Mr. Syme employs a hollow instrument, made of Berlin silver, which he asserts, possesses the requisite degree of rigidity, takes a fine polish, and is not liable to rust. Mr. Guthrie prefers a pliable hollow gum elastic bougie of a medium size, perfectly smooth, and tolerably round at the point, so as to give as little uneasiness as possible. Some thirty years ago, he had a dilating instrument made by Mr. Weiss, which, in the language of Hunter, was to act "like a wedge upon inanimate matter." At first, it consisted of three blades, which were gradually separated by the action of a screw which turned in the handle, and the same mechanism was afterwards applied to a two-bladed instrument. In his work on the *Urinary Organs*, Am. Ed., 1845, p. 76 he remarks: "I thought I had now obtained an instrument which could not fail of fulfilling all my expectations, and was only disappointed by finding

that it did too much. The opportunity of dilating was in general too tempting to be resisted, and the consequence was, that it produced irritation in so many cases, that I was forced to give it up, having also fully satisfied myself that dilatation, to whatever extent it might be carried, could not cure the worst kinds of stricture."

In concluding his remarks upon this subject, Mr. Thompson observes, that there are some cases of stricture in which the effects of dilatation are so temporary, that its claim to be regarded as a cure may justly be questioned. "The contraction re-appears, and that so rapidly, that in order to maintain a canal sufficiently patent for the performance of its functions, an instrument must be passed every other day, or even oftener, and thus the patient is subjected to perpetual treatment, and to the confinement and conditions of dependence consequent thereupon."

In other cases the sensitive condition of the urethra renders the introduction of sounds or bougies intolerable, and if employed, they aggravate the condition of the patient.

In reference to the employment of chemical agents in the treatment of stricture, after describing the different instruments employed for the purpose, Mr. T. concludes that these agents should never be resorted to for the sake of their escharotic or caustic powers, properly speaking. He admits that the nitrate of silver, lightly applied, exerts a salutary influence on the diseased surface of the urethra, as it does in cases of inordinate irritability, and undue vascularity of the skin and mucous membranes in other parts of the body, and it may thus become a useful adjunct to dilatation. The potassa fusa being more active, is consequently more dangerous, and, if used at all, it should be only in very minute quantities, "such as fractional parts of a grain," inasmuch as its action is with difficulty controlled. By dissolving some of the component tissues of a stricture, caustics may materially aid us in effecting dilatation. Mr. Reybard is a decided opponent of their use, asserting that they are liable to be followed by dangerous consequences, or to give rise to more dangerous contractions of the canal than those which they are intended to destroy. His experiments upon animals have led him to the conclusion that even the subsequent employment of bougies will not prevent this retractile cicatrization of the canal.

Incisions.—Here we have two methods, external and internal incisions. The history of these methods is given in detail by Mr. Thompson and M. Reybard. All the various instruments employed for internal incisions, Mr. T. remarks, are liable to the strong objections that the operator has no means of *seeing* how far, or what he

cuts. "Hence, I feel bound, unhesitatingly to discountenance the use of all curved instruments constructed on this principle, and if it ever be necessary to apply a 'lancetted stilett' without a guide, (which I have never had occasion to do,) its employment should certainly be limited to that part of the urethra which is quite movable, and where its direction can be controlled somewhat by the assistance of the hand not employed in directing the instrument. Less dangerous is it, as we shall hereafter see, to lay open the perineum and divide the stricture from without, thus giving free vent to noxious fluids of all kinds, than to wound the urethra from within, at or behind the bulb, as we run great risk of doing, when operating at six inches distance from the external meatus, and thus only make a channel for these matters into the erectile cavities and other structures around."

M. Reybard recommends a peculiar form of urethrotome invented by himself. The blade of this instrument is large, and its point is directed *towards* the orifice of the urethra. With this he incises the whole thickness of the walls of the urethra, at the seat of stricture. The margins are to be separated so that they may cicatrize at a distance from each other. The intermediate cicatrix resulting, he asserts, increases the diameter of the canal, and gives to it a new and permanent calibre. A period of twenty-five or thirty days is required for the cicatrization, and during this time a dilating instrument must be daily passed.

Of this method Mr. Thompson observes: "I cannot forbear expressing a conviction that the adoption of a proposal to make such extensive intra-urethral incisions, endorsed, as it nevertheless is, by the high authority named, will not be found an improvement upon the modes of treatment which are adopted on this side the channel."

The following, according to Mr. T., are the indications for the employment of intra-urethral section. 1st. When dilatation has been sufficiently tried and does not afford relief, or that which is temporary only in its duration, (and the stricture is not of an irritable character, in which case, as we have seen, a trial of the caustic may first be made); 2d. And the stricture is known to consist of a mere fold of membrane, or, at all events, is a short one, i. e., of small extent from before backwards; 3rd. When this is situated in the anterior three or four inches of the urethra, the case is one which most probably will be successfully treated by division, according to the modes already recommended, the choice of which should be determined by rules already given.

External Incision.—In the chapter devoted to this subject, Mr. Thompson reviews the evidence which we now possess in favor of

Professor Syme's celebrated operation, or as it has been called "the perineal section." In a former number of this journal (January, 1852, pp. 128–29), we had occasion to comment upon the extraordinary character of the discussions to which this question had given rise. It would seem that the Edinburgh Professor has somewhat modified his views as to the non-existence of *impermeable strictures* which he at one time so strenuously maintained. In the *Monthly Journal*, for June, 1851, he writes: "As to the question of 'impermeability' I simply maintain, that if the urine passes out, instruments may always, through care and perseverance, be got in beyond the contraction. It should be observed that the case here is quite different from that of a distended bladder requiring *immediate* relief. I have never maintained that in such circumstances the introduction of a catheter was always practicable." Patients, therefore, who may now wish to go from London to Edinburgh to consult the skillful Professor, will be compelled to defray their own expenses, his own liberal offer being of course no longer binding! Though he professes to have "*la main d'une adresse et d'une légèreté sans égale*,"* we have every reason to believe that, like the late Mr. Liston, he has at length been foiled in the introduction of the catheter, a circumstance which many have not hesitated to predict. Professor Syme makes *permeability* an indispensable pre-requisite to the performance of external division. How would he treat that class of which he has been so reluctant to admit the existence, viz., the impermeable strictures? But to return to the "perineal section." Mr. Thompson remarks that so far as he has been able to learn, this operation has been performed about 115 or 120 times. He then proceeds to discuss the questions, what amount of danger attends its performance, and how far is it entitled to be considered as a means of cure? The principal dangers are pyohœmia, hæmorrhage, and urinary infiltration. Besides these, there are what Mr. Syme designates as "*nervous*" symptoms, in which he considers the danger more apparent than real. In the *Monthly Journal*, November, 1852, Mr. Syme employed the following language: "Having now employed the operation in nearly seventy cases without a single instance of hæmorrhage or death, I feel entitled to say that the procedure is free from danger when properly executed."

Mr. Thompson states that of 113 operations of which he has the details, four proved fatal. The cause of death in all was pyohœmia. But, if hæmorrhage has not yet caused death, it has occasionally been

* Rousseau's eulogy of Frère Come, in *Confessions*, tome 3, 2d ed., p. 144

of an alarming character. This, however, Mr. Thompson asserts is not the necessary result of the operation, and cannot in fairness be charged to it. It may be avoided by attending to the cardinal point of the operation, viz., *to cut in the median line.*

Urinary infiltration is to be guarded against by avoiding the deep fascia, which according to Mr. Syme, is always practicable.

How far is the operation entitled to be considered as a means of cure? It must be remembered that it is principally performed in very obstinate, extensive, and irritable strictures, in which dilatation, cauterization, and internal division prove of no avail. In reference to this question, Mr. Thompson observes:

"There are three results which may arise from this operation:—It may fail to afford any relief:

"It may cure for a short period, and afterwards be followed by a relapse:

"It may effect a permanent cure."

In view of all the evidence before him, Mr. Thompson is inclined to believe that a large proportion of cases must be assigned to the third category, viz.: those for whom the proceeding has effected a permanent cure. He enters into an examination of the causes of the invariable success which has followed the operation in Mr. Syme's hands, and attributes the fatal results in the practice of other surgeons to the fact that they have not rigidly adhered to his directions. We regret that we have not the space to notice more fully the many instructive observations of Mr. Thompson in reference to this operation, but we can only refer the reader to the volume itself, assuring them, that they cannot but be profited by its perusal. We must also pass over chapters X., XI., and XII., which treat of urinary abscess and fistula; retention of urine, depending on stricture; and stricture of the female urethra. The work concludes with an appendix, which is devoted to the examination of urine for clinical purposes, chiefly in connection with the subject of difficult micturition, and a report of cases, to which reference is made in the work. There is also an appendix to M. Reybard's volume, containing the reports of some 36 cases; illustrating the views and practice of the author, as inculcated in the text. Woodcuts have been added to each of the volumes before us, whenever it seemed necessary to render the description of any particular form of instrument more intelligible, and no efforts have been spared by either the French or English author to produce a work worthy of the prize, for which they were competitors. Were we to decide upon the merits of the work, according to the amount of the awards adjudicated, that

of Mr. Reybard would stand first upon the list, but we feel satisfied that such will not be the opinions of those, who impartially examine them. Indeed, we know of no volume that can be compared with the very elaborate treatise of Mr. Thompson; containing, as we think it does, all that is at present known upon the subject. It will doubtless be re-published in our country. G. C. B.

Art. XI.—*Pneumonia: Its supposed Connection, Pathological, and Etiological, with Autumnal Fevers; Including an Inquiry into the Existence and Morbid Agency of Malaria.* By R. La Roche, M.D. Member of the American Philosophical Society; of the American Medical Association; Fellow of the College of Physicians, etc., etc. Philadelphia: Blanchard and Lea, 1854. 8vo. pp. 502.

It is well known that by many intelligent physicians in our southern and western states, pneumonia and all catarrhal affections are believed to be dependent upon the same specific cause which induces malarious fever. This etiological identity in these apparently distinct classes of disease, it is contended may not only be logically inferred, but actually demonstrated. A very large class of physicians practicing in the south and west, believe with the lamented Forry, that in a large proportion of the pneumonias occurring in the malarious districts, there appears to be, at least, a close alliance, if not a common origin, with intermittents; and recently there have appeared some very positive assertions of their entire etiological identity.

Prof. A. P. Merrill, of Memphis, in a recent essay on pneumonia, boldly maintains this view, and brings forward an array of facts, which to some minds may seem ample demonstration of the theory in question. Dr. H. A. Ramsey, of Geo., has also advanced similar views, in an essay on pneumonia, published in 1851. But all who are familiar with the medical literature of the last century must have remarked the very frequent recurrence of the same theory in the history of medical opinion. Cleghorn, Sydenham, Huxham, and Bailly clearly taught this doctrine of the widely-acting effects of malaria; and our own Rush, in his hypothesis of the unity of disease, practically taught the same doctrine. Macculloch, Copland and many other writers of note, have also very distinctly asserted the etiological identity of the forms of disease under consideration; and so popular has this theory become in some sections of this country, that the specific treatment for malarious affections has too often been a fatal treatment of inflamma-

tion of the lungs. To check the progress of a loose medical philosophy, which has already manifested some dangerous tendencies, and for the equally laudible purpose of presenting to the profession a *resumé* of medical facts and opinions relating to the origin, nature, and effects of malaria, the accomplished author of the volume before us, has undertaken and completed a task for which medical men in all parts of the world may be grateful. Dr. La Roche, in this work, has fully established his long-accredited reputation as an accomplished scholar, of vast erudition in the general literature of our profession, and as a man of discriminating and logical judgment. Whatever some persons may think of the opinions of our author, it certainly is no small merit of his book that the vast collection of facts that it contains, are so arranged and stated that they cannot possibly mislead the reader or be made to teach a false philosophy.

The first 300 pages of the work are devoted to the consideration of what may be termed the natural history of malaria. Chapter 1st., however, is occupied with the statement of facts arranged under the following heads:—1. *Belief in the connection of pneumonia with autumnal fevers long entertained.* 2. *Pneumonia common where fevers seldom or never are seen.* 3. *Pneumonia not necessarily prevalent where fevers are common.* 4. *The two diseases prevail in different seasons.* 5. *They appear under the influence of opposite winds.* 6. *Pneumonia is of yearly occurrence--not always so fevers.* 7. *Their altitudinal range is not the same.* 8. *Fevers influenced by nature of soil—not so pneumonia.* 9. *Fevers arrested by frost—not so pneumonia.*

In the last 3 chapters of the work, the author enters upon a careful and extended comparison of the etiological, anatomical, symptomatic. and pathological facts and events, which are respectively characteristic of the diseases in question.

The retrospect of medical opinions embodied in the first chapter, is exceedingly interesting, and it certainly serves as a sufficient apology for the goodly volume, to which it has given origin. After a very full and fair statement of the opinions of those who believe in the etiological identity of pneumonia and malarious fevers. Dr. La Roche, remarks:

"The reader will easily perceive that, before the advocates of the identity of the two diseases can successfully sustain the position they have assumed, it will be necessary for them to show that autumnal fevers and pneumonia are produced by the same causes; that they prevail in the same places, and during the same seasons of the year; that their existence and diffusion are promoted by the same agencies; that

they are arrested by similar means; that they exercise their effects on the same classes of individuals; that they present similar or kindred symptoms; that they affect the same organs, and produce the same or analogous changes in the fluids and solids; that they are governed by the same laws; and that they present other points of approximation invariably found to be possessed by diseases, between which there exists the close connection claimed in the instance before us. Unless they can succeed in attaining these objects, their opinion must fall, and the independence of those diseases be admitted. It becomes necessary, therefore, to take up each of these subjects separately, and to ascertain how far they may be appealed to in respect to the question at issue.

As we have seen, it is admitted that pneumonia is sometimes an idiopathic affection, caused, of course, in such cases, by atmospheric vicissitudes, or other kindred morbid influences, and unconnected with any complaint except ordinary phlegmasiæ. But, while admitting that much, it is contended that, in the majority of instances, the disease must be referred to a different origin, and viewed as simply symptomatic; that is, a mere form of another complaint, and would not, it may be presumed, exist if the causes of the latter, whatever they may be, did not exercise their baneful influence. It is suggested that the combination of phenomena, which impressed the common observer, that he beheld a special and independent complaint, was fallacious—really nothing more than a cloak, serving to disguise a disease which in its natural state, assumes a different dress; and that, while with infantile simplicity, we fancied we had before us a disease of well known pathological character; it turns out that we were dealing with one of a totally different kind, in which the affection of the lungs constituted an accidental and unessential element.

All this may prove acceptable in certain quarters; it may be regarded as plausible by some, or even as well founded and perfectly unanswerable. But so far as I am concerned, I have no hesitation in stating, as the result of my personal observations, aided by extensive inquiry and close reflection, that pneumonia is not *sometimes*, but *always* an idiopathic disease, whether it occurs sporadically or epidemically; and that it is due to causes perfectly distinct from those to which such fevers (malarious) owe their origin. I believe this; and believe besides, that even were pneumonia produced at times by the legitimate causes of fevers, such cases would not be any more symptomatic than those that are due to the ordinary causes of the disease; for these do not act directly and primarily on the lungs any more than others would do, supposing them capable of giving rise to the effect in question."

Dr. La Roche, thus very clearly announces his opinions concerning the etiological and pathological distinctness of pneumonia, etc., from the autumnal fevers with which it is so often unhappily associated in malarious districts. To those physicians who have seen pneumonia only as it occurs in our Northern States, our author's conclusions on this subject may appear very natural, as well as practically safe; but

among those who have had experience in treating the pneumonias of our Southwestern States, there are many and highly respectable practitioners who will dissent from the positions taken by Dr. La Roche. But our author has proved himself fully qualified for the discussion of his subject, and being no partizan, and manifestly having no other object in view, than the elucidation of highly important and practical pathological principles, all of his statements of fact are characterized by a completeness and fairness that is most gratifying; while the careful and logical arrangement of his argument is such as to carry conviction to the minds of most of his readers.

We have already mentioned the heads of the argument included in the first chapter, which embodies a remarkably complete bibliography of ancient as well as modern literature relating to the points under discussion. Of authors quoted and works referred to under these heads, are nearly three hundred names of the highest authority; and, if in this chapter it is not clearly demonstrated that "pneumonia is *always* an idiopathic disease," it is, at least, satisfactorily proven that if under any circumstances inflammatory affections of the lungs may be of zymotic origin, they necessarily depend upon some other climatic or meteoric agencies than those which are concerned in the production of periodic fevers.

Dr. La Roche is a firm believer in the doctrine of a specific *miasma* as the cause of all climatorial fevers; and to set at rest, so far as may be, all doubt upon this vexed question, he enters upon an extended and extremely thorough examination of the subject of the *Existence and Morbid Agency of Malaria.* The various theories which have recently been proposed, such as high dew-point, vicissitudes of temperature, terrestrial radiation, modifications of the normal electrical conditions of the atmosphere, etc., he has very properly declined to discuss except in an incidental way. After reading Dr. La Roche's treatise we are more fully satisfied than ever before, that neither one, nor all of the hypotheses just mentioned can sufficiently satisfy the conditions, etiological and pathological, of the periodic fevers, to be permitted to take the place of the old and firmly established theory of a special miasma. This theory though now venerable with age, must, we think, continue to take the precedence of all others on this subject, until further researches in organic and iatro chemistry shall reveal to us the exact nature of this now mysterious zymotic agency or atmospheric condition, which is everywhere admitted to be the proximate cause of intermittents. And the hope that such a discovery may ere long be made is certainly not preposterous. Already the discovery of the principle

of allotropism, and especially of that allotropic state of oxygen, discovered by Schönbein, and by him denominated *ozone*, indicates the direction in which such iatro-chemical investigations may be most hopefully directed. We have already remarked that Dr. La Roche has entered upon a very full and satisfactory investigation, and account of the natural history of malaria. It would be impossible in this place to give any thing like a complete analysis of these deeply interesting chapters of his book. It is perhaps sufficient to say that they embody a far greater amount of facts on this topic, than can be found elsewhere in any ten other treatises on the subjects in question; and besides, the merit and value of the work are immeasureably enhanced by the very logical arrangement and classification of this vast aggregation of widely-gleaned facts.

Those facts which relate to the existence, nature and morbid agency of malaria are arranged under fifty-seven separate heads, and those which relate to points of comparison between the etiology of pneumonia and miasmatic fevers are included under nearly half that number of classes, and constitute the last three chapters of the volume.

We will make a few quotations from several of these classes, in which some points of great practical importance are happily elucidated:

Fever not due to the action of any known gases:

* * * Few, also, who have reflected seriously on the subject will feel disposed to lend a willing ear to the theory which teaches that the cause of fever must be sought in the admixture, in minute or larger proportion, of sundry gases, with or without addition of other substances—carbonated hydrogen, carbonic acid gas, ammoniacal gas, hydrosulphuric acid gas, phosphuretted hydrogen, etc.; for were it true that these gases have been, or may be detected in the atmosphere of sickly localities it would not follow that we must ascribe fever to their agency, seeing that though often unpleasant to the smell and sometimes injurious or even fatal in their tendencies, they do not produce phenomena analogous to those of the diseases in question, even when absorbed in large quantities, while those they do occasion present always a widely different garb, and that, as they do not produce the symptoms of true pyrexial complaints when absorbed in large quantities, they are not likely to produce them when received in such small proportion as to elude detection."

After examining the various doctrines and statements to which the hypothesis in question has given rise, our author concludes that "there is not the most distant probability that malaria will ever be found to owe its morbific agency to, or consist in any extraneous gas floating in the atmosphere, or, that fevers are due to an excess or deficiency of one or more of the known constituents of the latter.

Nature and condition of fever localities lead to the opinion of the existence of Malaria.

The danger of an attack of fever increased in proportion to proximity to such localities.

If we approach to, or remain some length of time—occasionally only a few hours or moments—in those localities, or in their immediate vicinity, we are stricken down with fever; if we avoid them, we escape. The South Carolinian gives up his plantation residence in summer, removes to Charleston, or to the mountains, where he is safe from the country fever. Let him visit his estate before the advent of frost, and especially, let him sleep there, and he runs great risk of an attack. In yellow fever seasons, strangers must leave, or abstain from entering the city; if they venture into it, they will in all probability have the disease. With us, in Philadelphia—as with the residents of other cities of the middle and neighboring States, and of some parts of Europe—where infected districts are of limited extent, the disease is restricted to individuals who venture within the bounds of these. At a very few paces from the sickly spot to which they penetrated, and where they doubtless imbibed the seeds of the fever; people move about, business is transacted with perfect impunity, and everything often looks precisely as if the city were not the seat of an epidemic.

These effects are not due to heat alone.

Under this head, Dr. La Roche adduces an array of the most interesting facts, and most successfully controverts the doctrine taught by Tommasini and Hosack. In this connection, honorable mention is made of the very valuable and philosophical report made to the Smithsonian Institute last year, by Lorin Blodget, Esq.; and first published in this journal (N. Y. Jour. Med. vol. xi. p. 313). The following are the conclusions of Dr. La Roche upon this subject:—

Heat may be, and is, to a certain extent, requisite to promote the formation of other agencies; it is doubtless, essential to further the evolution of the poison which gives rise to the disease, as everything connected with the latter proves—its production in hot weather, its absence in cold, and its disappearance on the accession of frost. Heat may act besides, as an exciting cause, but alone, it cannot occasion the peculiar form of fever under consideration. It requires materials to act upon, and from which, aided by other influences, it may extricate an efficient cause."

A very lengthy chapter is devoted to the detail of facts which have been observed in the medical topography of malarious districts in our own and other countries, and the argument derived therefrom, is as complete as could be desired. Apart from the relevancy of these carefully compiled facts to the author's argument, they constitute in their present condensed and convenient arrangement, a very valuable addition to this branch of our professional literature.

In the closing sections of the fourth chapter, Dr. La Roche undertakes, and, we think, very successfully, to answer the principal objec-

tions which have been urged against the theory of a special miasma. Admitting, and, indirectly, very satisfactorily demonstrating, the doctrine proposed by Prof. Dickson, of the blending of the types of fever, and the not less important doctrine taught by Prof. J. M. Smith, of this city, after Lancisi, Littré, and Twining,—of the diversity, composition, and permutation of miasms, the leading objections to the doctrine of a special malarious cause of periodic fevers are fully disposed of; and no physician who has attentively studied the history of fevers in the United States, will dispute the positions assumed by the learned professors, whose names we have mentioned above.

In concluding his argument on the subject of malaria, Dr. La Roche remarks as follows:—

Now, as has been said before, when we find the cause of fever requiring for its development the action of the very agencies which are necessary to insure the development of the gaseous products of decomposition; when we find that without these agencies, applied in certain proportions, neither those gaseous products, nor the efficient cause of fever will manifest themselves; that in all instances in which the latter is produced, as shown by the occurrence of fever, materials capable, when acted upon by the agencies in question, of giving rise to the evolvement of the gaseous products of decomposition—organic matter in various conditions and states of modification—exists; that total absence of those materials, whatsoever be the degree of heat, and of terrestrial and atmospheric moisture, carries along with it an equal absence of fever; and that, when once formed, the gaseous products of decomposition, as well as the fibrific cause, are cut short by frost or intense heat, and the process by which they were generated, arrested;—when, I repeat, all these circumstances are borne in mind, we can have no reason to doubt the propriety of admitting that the febrile cause presents a close analogy to the above-mentioned gaseous products; and that if in regard to the latter, heat, humidity, and other agencies acting in given proportions, and in concert on dead organic matter, give rise to certain products which assume the gaseous form; and if the process of the generation of these, and their existence in the atmosphere is destroyed by frost, or intense heat, the febrile poison which requires for its generation the action of the same agencies, as also, the existence of a kindred matter, and is besides arrested in its formation, and destroyed, when formed in the way mentioned, must necessarily consist of some modification of a similar kind of gaseous substance; in other words, that autumnal fevers must be the offspring of a malarial morbid poison, and not the effect of modifications in the sensible qualities of the atmosphere.

This is certainly a very logical and safe conclusion, yet it is by no means necessary that we should assert that the miasmata actually consist of new and separate gaseous substances, for we conceive it perfectly profitable, and, for many reasons, highly probable, that the or-

ganic gases of decomposition, to which our author here refers, may in conjunction with the causes which induced the decomposition and the gaseous emanation, induce in one or more of the elements of the atmosphere of such malarious locality, or in some of the elements of the living body, a condition analogous to the *allotropism* of which many of the elementary constituents of matter are known to be susceptible. And if future researches in physiological chemistry should demonstrate such a doctrine, it would certainly answer all the conditions and all actual characteristics accredited to a special and substantive miasma; but until more can be known on this subject we are content to believe in the doctrine so ably defended and elucidated by the learned author of the treatise before us.

We come now to the points of comparison in the etiological, symptomatic, and pathological history of the two classes of disease under consideration. Dr. LaRoche here fortifies his positions with impregnable facts: It is clearly proven that the proximate causes of the two classes of disease are widely different; that autumnal fevers are localized in certain places; not so pneumonia; that the diseases differ widely in symptoms and anatomical characters, and that their distinctive symptoms and pathological characteristics are still more widely at variance; that they differ widely as regards their respective modes and periods of incubation; that the susceptibility to pneumonia is never exhausted by repeated attacks; that the power of acclimatization does not extend to pneumonia; that pneumonia autumnal fevers are not convertible diseases; and by many collateral evidences, it is demonstrated that these diseases are and must be essentially and under all circumstances dependent upon entirely distinct proximate causes, however indirectly certain pneumonias may depend upon the malarious poison. In his closing chapter our author takes up the consideration of those combinations of autumnal fevers and pneumonia which are so common in malarious districts, and shows that such cases must not be considered as *peculiar* forms of either.

But we have already exceeded the limits prescribed for the examination of this excellent treatise; we cannot however forbear making the following quotation from the author's closing remarks:—He says,

"Those who raise such an outcry about the necessity of facts, and reprove the most authoritative writers and teachers for a supposed adherence to preconceived notions, and a neglect of the true principles of the inductive philosophy, should first satisfy the profession, not only that they are less liable to error than their opponents, in drawing deductions from the facts that may happen to collect, but that these facts have been examined in a way calculated to secure advantageous

results. They should remember that, great as the number of useless theories may be, it sinks into insignificance when compared with the amount of incomplete facts which float around us. To observe accurately—to seize the important and useful points in the case examined—to discover its true bearing to other cases, its exact analogy to, or dissimilarity from them—to ascertain its dependence or independence of surrounding influences—to point out accurately the morbid agencies which have produced it, and to ascend by an analysis of its symptoms and anatomical characters, to its pathological nature and therapeutical indications, require a degree of skill, a tact, a habit of close observation that are not easily acquired, as well as opportunities for investigation that do not fall to the lot of every one.

We have finished our reading of Dr. La Roche's treatise with feelings of sincere gratitude to its learned author for the lasting benefit he has conferred upon our profession in thus collecting and arranging a vast and connected series of medical facts which never before have been so thoroughly analyzed or so perfectly classified—a labor which few medical men have the means or the ability of doing for themselves; and we think that all lovers of medical science must unanimously express their earnest desire that from the same rich storehouse and the same graceful pen which have given us this goodly volume, other works of equal value should speedily be issued, as we feel assured they may, without exhausting the accomplished author's resources. E. H.

ART. XII.—*Annual Report of the City Inspector of the City of New York, for the year* 1853. New York: McSpedon & Baker, Printers to the Common Council, 1854.

THE large amount of important matter which this Report and its tables contain, and the perspicuity and conciseness of arrangement, reflect creditably on the industry and fidelity of the City Inspector, and this annual document, a few years since almost valueless, is now highly interesting and instructive to those interested in vital statistics.

The total number of interments during the past year, was 22,702; of these 1,576 were stillborn, and 355 born prematurely; 97 died of malformation, and 175 of old age; 12,230 were males, leaving 10,472 females. The monthly mortality was greatest in August, next in July, and least in April, May, and November.

The number of foreigners who died during the year, 7,104; or over 31 per cent of the total mortality. Of these 4,247 were Irish, 1,576 Germans, and 538 English.

The diseases which proved most fatal during the year, were as follows:—

	Deaths.		Deaths.		Deaths.
Consumption,	2739	Cholera Infantum,	922	Marasmus,	1156
Dropsy in head,	903	Inflammation of Lungs,	1067	Dysentery,	763
Diarrhœa,	689	Croup,	673	Small Pox,	656

The following table gives the monthly mortality from these diseases:

	Jan.	Feb.	March.	April.	May.	June.
Consumpton,.....	247	220	248	228	217	209
Marasmus,.....	45	43	57	62	55	70
Inflammation of Lungs,...	109	94	140	113	81	86
Cholera Infantum,.....	2	2	2	2	10	117
Dropsy in Head,.....	57	90	90	65	54	29
Dysentery,.....	18	21	19	19	20	54
Diarrhœa,.....	12	16	8	18	18	68
Croup,.....	63	58	70	55	49	42
Small Pox,.....	53	57	49	46	60	36

	July.	August.	Sept.	Oct.	Nov.	Dec.
Consumption,.....	203	230	224	261	214	238
Marasmus,.....	152	203	151	100	77	75
Inflammation of Lungs,...	53	47	46	67	105	116
Cholera Infantum,.....	308	316	115	37	5	6
Dropsy in Head,.....	90	116	61	70	53	78
Dysentery,.....	146	182	135	87	41	21
Diarrhœa,.....	152	160	119	42	39	37
Croup,.....	28	32	36	81	70	89
Small Pox,.....	21	28	26	58	90	132

This table furnishes us several interesting facts. We see consumption presenting a nearly uniform mortality in the different months, contrary to the popular belief. Marasmus was more fatal in warm than cold weather, and the bowel complaint most severe in August, which was also the month of the highest average temperature.

It will be recollected that coup de soleil or sun stroke, caused an unusually large number of deaths last summer (260). Twenty-five of these occurred in June, one in July, two hundred and twenty-four in August, nine in September, and one in October. The Inspector adds, that most of these cases were unacclimated foreigners; 204 were males, leaving 56 females. In no previous year, has there been reported a larger number than 36 deaths from this cause. According to an interesting article on the sanitary condition of the summer of '53, published in the Journal a year ago, it would seem that the humidity of the atmosphere as well as the high temperature produced these cases.

BIBLIOGRAPHICAL NOTICES.

ART. XIII. *Principles of Comparative Physiology.* By WILLIAM B. CARPENTER, M.D. F.R.S., F.G.S., Examiner in Physiology and Comparative Anatomy in the University of London, etc., etc. With three hundred and nine wood engravings. A new American, from the fourth and revised London edition. Philadelphia: Blanchard and Lea, 1854, 8vo. pp. 752.

THE appearance of the present edition of Dr. Carpenter's work on Comparative Physiology has long been impatiently anticipated by advanced students in physiological and natural science. The delay, however, in its publication in this country, arose from circumstances which reflect creditably upon the American publishers, and add materially to its value. It has been their purpose to bring out the volume in a condition not at all inferior to the foreign edition as regards illustrations, and to accomplish this required time and preparation.

The first edition of this work appeared in 1839, the second in 1841, and the third in 1851. Neither of these editions was republished in this country, but by an arrangement between the English and American publishers, the third edition was printed on joint account, and thus it appeared in this country. Its reception was such as to induce the latter to reprint the next English edition, in order to have it range with their reprint of the same author's work on Human Physiology.

The author states that this is not altogether a new edition of the original work on the "Principles of General and Comparative Physiology," for the success of the previous edition of that work induced him to change the plan, whereby he has been able to add much new matter, and bring each subject completely up to the present time. This edition appears, therefore, as a treatise on Comparative Physiology, and it is the author's design to follow it with the General Physiology of the former edition as a companion volume. Thus by a division of subjects, he is enabled to render each part as perfect as the advancing Science of Physiology will admit of, under any circumstances.

The importance of a thoroughly scientific and comprehensive work on Comparative Physiology can not be over-estimated. This science commends itself to the attention of the student not less by its inherent attractiveness, than by its necessary connection with a proper understanding of Human Physiology. It is but recently, it is true, that physiology has been recognized as part of a prescribed course of medical study, yet within that short time it has come to be considered, not merely as essential to a complete medical education, but as absolutely indispensable to a knowledge of the first principles of the science of medicine. Physiology has attained its true position, and now ranks next to anatomy in the course of study laid down by our best medical institutions. As a natural result of the importance which our schools have latterly given to physiological studies, a class of earnest and successful cultivators of this science have risen, who are doing more perhaps than any other, to give us a national reputation in the medical world.

We hail, therefore, the appearance of a work like this, which will tend far more powerfully than its predecessors to stimulate the growth and extension of physiological science in this country. It contains within the compass of a fair-sized volume a complete survey of the animal kingdom in its physiological relations, and presents us with the most recent opinions and latest researches of the best authorities. It is written in the pure, classical, and perspicuous style for which Dr. Carpenter has been so justly celebrated, and while, therefore, it is adapted to the comprehension of the beginner, and may serve him as a text book, its completeness will render it a work of reference to the most advanced student in this department of natural science. A most valuable addition to this edition is a full bibliographical index. Of the execution of the work we cannot speak too highly. The illustrations are numerous, original, and in the very best style; the typography clear, and the general appearance of the volume is neat and elegant.

ART. XIV. *Manual of Human Microscopical Anatomy.* By A. KÖLLIKER, Professor of Anatomy and Physiology in Würzburg. Translated by GEO. BUSH, F.R.S., and THOMAS HUXLEY, F.R.S. Edited, with notes and additions, by J. DA COSTA, M.D. Illustrated by three hundred and thirteen engravings on wood. Philadelphia: Lippincott, Grambo and Co., 1854, 8vo. pp. 802.

PROF. KÖLLIKER very justly remarks in the preface to this work that "Medicine has reached a point at which Microscopical Anatomy appears to constitute its foundation, quite as much as the anatomy of the organs and systems; and when a profound study of Physiology and Pathological Anatomy is impossible, without an accurate acquaintance, also, with the most minute structural conditions." He considers it the duty, therefore, of the cultivators of this branch of science to communicate the results of their researches to all who are devoted to the study of Man, and to render them easily available by students and practitioners. With this view he has prepared this manual, omitting all polemical disquisition, and leaving the history of the science in the back ground. For further information he refers to his "Microscopical Anatomy," in which the *data* for all that is here only briefly expressed, will be found.

The value of this work is to be estimated not only by the intrinsic importance of the subject-matter which the author has modestly asserted, but also by the high authority which the sanction of his own investigations attaches to them. Prof. Kölliker now ranks as the first living Histologist. Although undoubtedly anticipated in the discovery of some of the principal facts in histological science by Martin Barry, he has, nevertheless, the great merit of having cultivated every portion of this fertile field, and reduced these isolated facts to order, and therefrom developed a beautiful and symmetrical science.

The work before us is a reprint of the Sydenham Society Edition, which was translated by Mr. Busk, and Mr. Huxley, names highly distinguished in microscopical science in Great Britain. They seem,

however, to have been anticipated in the actual commencement of the translation of the work by our countryman, Dr. Da Leosta, who, impressed with the absence from our medical literature of a systematic treatise on Microscopical Anatomy in its connection with Physiology and Pathology, had already formed the design of translating Prof. Kölliker's Manual, and was progressing with the work when he learned the intention of the Sydenham Society. As the time and labor requisite for an original translation would have prolonged the publication of the work far beyond the appearance of the English edition, he resolved to adopt the translation of this Society, and merely append such notes as he intended to have added to his own edition.

In the execution of this plan, he has noted all the more recent contributions to Histology, and incorporated into the text many paragraphs from the author's larger work. He has also communicated recently with the author, and learned his present opinions on subjects which have been more thoroughly investigated since the publication of his work. All slight deviations from previously expressed opinions have thus been carefully noticed. The American edition is also furnished with an index, in which all other editions are deficient. To complete the summary of the improvements made by the American editor and publishers, we must add that the wood-cuts are those used in the *original* German edition.

It will be seen that this edition is superior to the English in the completeness of the subjects and the accuracy of the investigations, and in the beauty and fidelity of its illustrations. It is also much more convenient in having a copious index, and in being published in a single volume.

ART. XV. *The Principles of Animal and Vegetable Physiology: A Popular Treatise on the Functions and Phenomena of Organic Life.* To which is prefixed a general view of the great departments of Human Knowledge. By J. STEVENSON BUSHNAN, M.D., Physician to the Metropolitan Free Hospital, etc., etc. With one hundred and two Illustrations on Wood. Philadelphia: Blanchard & Lea, 1854. 8vo., pp. 234.

The Principal Forms of the Skeleton and of the Teeth. By PROFESSOR R. OWEN, F.R.S., etc., Lecturer on Comparative Anatomy, etc., etc. Philadelphia: Blanchard & Lea, 1854. 8vo., pp. 329.

THESE two small volumes, we are informed in the Publisher's preface, belong to a series of works which are being published in London under the title of *Orr's Circle of the Sciences.* The editor of the series is Dr. Bushnan, the author of the first volume above announced. The design of this series is to furnish a class of works upon the most important and useful branches of natural science, suited to popular reading, and which may serve as guides to the student in the pursuit of knowledge in any department of which they treat.

ART. XVI.—*An Examination of the Practice of Bloodletting in Mental Disorders.* By PLINY EARLE, M.D., author of "A Visit to Thirteen Asylums for the Insane in Europe," &c., &c. New York: S. S. and W. Wood, 1854. 8vo. pp. 126.

No one who reads this interesting volume will fail to derive from it a good degree of practical instruction. If there was wanting evidence of the diversity of opinion, on a point of medical practice, we feel assured that a perusal of this monograph will fasten the conviction that it did not exist on the point of bloodletting in mental disorders.

The object of Dr. P. in preparing this work has been to answer the following question, viz. :—*To what extent, in regard to both frequency and quantity, is the abstraction of blood required in the treatment of Insanity?* The final answer to this question is summed up in the following conclusions :—

1. Insanity, in any form, is not, of itself, an indication for bloodletting.

2. On the contrary, its existence is, of itself, a contra-indication. Hence, the person who is insane should, other things being equal, be bled less than one who is not insane.

3. The *usual* condition of the brain, in mania, is not that of active inflammation, but of a species of excitement, irritability, or irritation, perhaps more frequently resulting from or accompanied by anæmia, debility, or abnormal preponderance of the nervous over the circulatory functions, than in connection with plethora and enduring vital power.

4. The excitement, both mental and physical, produced by this irritation, can, in most cases, be permanently subdued, and its radical source removed by other means, more readily than by bleeding.

5. Yet insanity may be coexistent with conditions,—such as positive plethora, a tendency to apoplexy or paralysis, and sometimes sthenic congestion or inflammation, which call for the abstraction of blood. Therefore,

6. Venesection in mental disorders should not be absolutely abandoned, although the cases requiring it are very rare.

7. As a general rule, *topical* is preferable to *general* bleeding.

8. In many cases where the indication for direct depletion is not urgent, but where bloodletting, particularly if local, might be practised without injury, it is safer and better to treat by other means, equalizing the circulation and promoting the secretions and excretions.

9. The physical conditions requiring blood-letting more frequently exist in mania than in any other of the ordinary forms of mental alienation.

10. Insanity following parturition, other things being equal, is to be treated by bleeding less frequently than that which has its origin in other causes.

11. If the mental disorder be the direct result of injury to the head, the treatment must be directed to the wound, or its physical effects, not specially to the psychic condition.

12. In many cases where insanity is accompanied by typhous symptoms, and in some where the aspect is that of acute phrenitis, active stimulants alone can save the patient, and direct depletion from the circulation is almost certainly fatal.

PART THIRD.

FOREIGN MEDICAL RETROSPECT.

PRACTICAL MEDICINE.

Scarlatina Complicated with Acute Rheumatism. By Dr. HENRY KENNEDY.—Pains of a rheumatic character, in connection with scarlatina, present themselves to our notice under three very different aspects, which it is necessary to bear in mind. In the first, they usher in the attack; in the second, they appear whilst the eruption is still out on the patient—the disease being at its height; and in the third they come on just after the attack is over, and form then what may be called a sequela of the disease. Of the first it will not be necessary to speak at any length; they are exceedingly common at this period, and are, in fact, exactly analogous to those pains which are so well known as ushering in nearly all the forms of acute disease. It is also worthy of remark, that precisely the same character will be noticed in connection with them as may be observed in our ordinary fevers; that is, that at certain periods these pains are very much more prominent symptoms than at others; in fact, they may be so severe as to constitute the leading cause of complaint. In my own experience, they are more common in adults affected with scarlatina than in children; and this we might presuppose, inasmuch as rheumatism is a more frequent disease in adult than in early life. The pains I now speak of are usually described as passing through all the limbs, though I have seen them often confined strictly to the joints—such as the knees and wrists,—and even in some cases a certain amount of swelling may be observed; this, though, is the exception to the general rule. These pains may be classed amongst the premonitory symptoms of the first stage of scarlatina; that is, when they are present; for numerous cases occur where they will be scarcely noticed. Pains of precisely the same character generally usher in an attack of rheumatic fever. In the majority of cases these pains subside after two or three days, and so leave the scarlatina to pursue its own course. In other instances they go a stage further; and then we have the joints swollen, the attendant redness, and every sign of well-marked rheumatic fever, excepting that there may not be such profuse sweating as commonly attends that disease when existing *per se*. I am now speaking of a period when the rash is fully developed, and at the same time the joints severely affected with acute rheumatism: a point which I believe to be of some importance, and which, in January, 1853, came under my notice in a very marked way, in a family of five brothers and sisters, in each of whom

rheumatism of the joints was the leading feature of the attack. In two only, however, were the joints swollen precisely as in acute rheumatism, while the rash was still visible, and the throat of each very sore. To a brief notice of these two cases I shall beg to call attention.

Case I.—A lady, aged 23, unmarried, was attacked with the usual premonitory signs of scarlatina four days previous to my seeing her in consultation. She suffered at first from severe headache, sore throat, and general pains through the body; these signs were shortly followed by a well-marked rash, without, however, any improvement in the pains, which, on the contrary, seemed rather to increase in intensity, and at the same time to localize themselves about the lower joints, which shortly became swollen. It was in this state that I first saw her. Her pulse was 116, full and bounding, but compressible; her tongue and throat morbidly red and dry, particularly the latter, which presented an angry, glazed appearance, attended with much swelling of the internal fauces; the rash was still visible in patches; the skin was morbidly hot, even though it gave a feeling of trivial moisture; the heart's action was regular, and there was no souffle; the distress was very great, and entirely referred to the swollen joints; the knees, ankles, wrists being all engaged, and beside these the nape of the neck.

Case II.—A sister of this patient, aged 17, lay in the same room. She had some symptoms identical with the first case, but with her the rash was still fully out; her joints were also affected with acute rheumatism, though not so many as in the former case; her pulse was 140, and very weak; and her throat was much engaged. It was, however, owing to most distressing and alarming fits of violent dyspnœa that I was asked to see this patient; and on the most minute examination I could not detect any thing wrong with either the lungs or heart, though it was possible the latter might have been engaged, and more especially since the pulse was so rapid; there was no external swelling of the neck, such as I have often seen attend severe dyspnœa, nor such a state of the internal fauces as would account for it. I should have stated, that this girl's distress was referred to the larynx, and chiefly to the left side. Under these circumstances I came to the conclusion that the fits of dyspnœa must be nervous, and on the treatment I shall presently make a few remarks. These two cases were good examples of the combination of acute rheumatism with scarlatina; and it may be remarked, that the remaining three members of the same family had all severe pains in their joints, though no swelling was visible.

The third and last way in which rheumatism may complicate scarlatina is by coming on as a sequela of the attack; that is, after the rash has declined, and the patient may have made some approach to convalescence. Of this occurrence I have now seen several well-marked examples. The following may be given as bearing on this point:—

Case IV.—A boy, aged four years, was convalescent from scarlatina about one week, when he was again attacked with very high fever, attended by swelling of the parotid region, which was soon followed by signs of effusion into all the larger joints. The first day I saw the case, the mother had sent for me on account of the swelling of the

neck, which had caused a state of wry-neck, and as no other part was then effected, I set down the case to be one of those swellings of the neck which it was so common, at that time, to meet, in connection with this exanthem. The next day I found the child was suffering severely from pains in the ankles and wrists, while the neck was still more painful than the day before. The child had been raving and screaming all night, the fever was at the highest pitch, and the skin was absolutely burning: the affected joints were red and swollen. The following day I found the ankles quite free from swelling and pain, while the knees had been attacked with both. It is enough for my present purpose to add, that this child got well in some days. The cases which have been given are sufficient to establish the fact that acute rheumatism may exist with scarlatina, or may occur as a sequela of that disease; it was, however, for another purpose than the mere announcement of this fact that they have been brought forward now. I wish to speak of them in reference to the question of diagnosis, for in this point of view there is really more difficulty than might at first sight appear. Acute rheumatism may be thought an affection, about the diagnosis of which there could be little or no doubt. Under the circumstances, however, that I am now speaking of the disease, it is a very different matter, and cases, I am aware, will occur where the greatest doubts will exist as to the nature of the attack. The disease with which acute rheumatism may be confounded is, of course, the well-known one where purulent effusion takes place in the joints or elsewhere,—an affection by no means uncommon in scarlatina, and about as fatal as can be met with. In the last case I gave, that of the boy of four years old, I had first set down the disease as one of purulent effusion; it had really every symptom of that formidable affection. The way in which the attack commenced, by the swelling of the parotid region, was little likely to lead to a correct diagnosis, and it was only the day following this, when four of the larger joints were attacked, that the question arose as to what was the nature of the disease; at this time there was a something about the case which struck me as strange. I observed, that though there was swelling of the neck, still it had not *increased* from the day before; now this fact, coupled with an intense degree of fever (supposing the case to be one of purulent effusion), had never before occurred in my experience, for twenty-four hours had always proved sufficient time to have caused a material increase in the swelling; here, however, it will be observed, there was none. But, again, as far as I had seen, no case had ever come under my notice amongst children, where pus was poured into four of the larger joints simultaneously, as appeared to have taken place here: it was usual to find but one joint affected at a time, and if more were attacked, it was in succession. For these reasons, then, I was kept in a state of suspense, which the following day cleared up, as already detailed. This case, which was also seen by my friend, Dr. Croker King, now of Galway, was to me one of great interest, being the first instance I had seen where a distinct rheumatic attack, and of a very severe nature, set in after scarlatina.

On the subject of treatment one or two remarks will suffice. In

the first case given, where acute rheumatism coexisted with scarlatina, after paying attention to the state of the bowels, she was, ordered the decoction of bark in full doses, together with a good opiate, in the form of morphia, at night; subsequently the bark was given in the effervescing form, and this case made a very good recovery as regards the rheumatism, though a long period elapsed before she enjoyed her usual health. In the second case, where, with rheumatism and scarlatina, there were also fits of urgent dyspnœa, an emetic was administered with very marked advantage; subsequently she took lemon juice with good effect, and her recovery was a very quick one. Of the treatment of rheumatism complicated with scarlatina, I have had comparatively little experience. But I believe some plan, like that just given, and of course suited to the demands of each particular case, holds out the best prospect of a rapid recovery. Bark in full doses is certainly useful, nor does a furred tongue, and other signs of fever, deter me from its use. On the other hand, there are cases where it does not agree, and these I am unable to describe particularly. I recollect well, in a conversation with the late Mr. Colles, his stating the very same thing in reference to the ordinary acute rheumatism, viz.: 'that in many cases of the disease, bark was the proper remedy, whilst in others again it disagreed.—*Dublin Quar. Jour.*

Opiate Inhalations and Fumigations. By Dr. Lombard, of Geneva.—I am aware that the attempt has often been made to introduce opium in the nasal fossæ, chiefly for the abortive treatment of coryza, either by means of injections of water and laudanum, or by making the patient snuff up a powder of sugar and morphine mixed. But the end I wish to attain to is very different; the greater tenuity of the smoke, not less than its warmth, allows it to penetrate, without pain as without difficulty, into the crevices of the nasal fossæ; a result which cannot be obtained by a liquid, still less by a powder, however impalpable. The method that I am about to submit to your notice, after two years and a-half of clinical observation, seems to me very different from those of which I have just spoken, and I can affirm, without the least fear that experience will contradict my assertion, that the inhalation of opium smoke into the nasal fossæ is a most useful therapeutic resource. I shall first mention some of the cases in which it has prospered admirably in my hands. You have, no doubt, met with, in your practice, cases of coryza, accompanied with lancinating pain in the frontal sinus; pain which sometimes becomes very intense. In such cases it is, that I have seen the opium fumigations produce truly marvellous results; pain has ceased as if by enchantment, and an almost intolerable state has been succeeded promptly by remarkable relief.

In a case of this kind that was under my care some eighteen months ago, the pain was so intense as to make the patient cry out, and induce him to believe, although of a firm and by no means pusillanimous disposition, that he was suffering from a dangerous cerebral affection. These pains came on in the course of a catarrh, accompanied by intense coryza, produced by a cold blast playing all night on the face of the

patient. Two or three fumigations were sufficient to remove the pain. Some slight return of the same suffering yielded promptly to the same remedy, to the exclusion of all other treatment. A cure so prompt and easy gave me confidence in a remedy that I then merely experimented with, especially when my memory recalled a great number of cases in which other methods of treatment had failed, and the frontal pain had continued, in spite of the most varied medication.

The opiate fumigations are of use not only in the continued neuralgic pain, as in the patient already alluded to, but also in the periodic form of that disease; for this circumstance does not prevent the success of the inhalation of opium. In fact, in the majority of cases I have had to treat, the frontal, temporal, or zigomatic pain accompanying catarrhal coryza is met with under the periodic form; nevertheless, this method is quite sufficient to cure the malady, without the assistance of any other medicament. Two patients, on whom I tried the effect of opiate fumigation in February, 1852, were both attacked with coryza, complicated with periodic pain. In one of them the access returned regularly at eight o'clock in the morning, and lasted till four o'clock in the afternoon; whilst, in the other, the afternoon was the time at which the return of the periodic frontal pain took place; in both cases the opiate fumigations, without any other treatment, brought about a prompt recovery. It is not only in the cephalalgia connected with coryza, that I have thus employed opium, but also in certain cases where the neuralgic pain was symptomatic of some other morbid affection, or idiopathic. After making mention of a variety of other cases in which Dr. Lombard had adopted this mode of treatment, so as either to cure or considerably relieve his patients, he proceeds to consider the doses of the drug, and the manner in which it should be used

I commenced with five centigrammes (about one grain) of pulverised opium, mixed with as much sugar, and sometimes an equal part of gum benzoin; later I ordered ten or fifteen centigrammes in each fumigation; but the intermediate doses of ten centigrammes seemed to answer all the indications, and produce the desired effect. I have repeated the fumigations two or three times a day, but sometimes having had recourse to them oftener, I did not regret it, having witnessed no bad effect from it.

As regards the mode of administration, it is as simple as possible:—I heat in the fire a thin plate of iron, as a shovel for example, and I direct the patient to take the powder in small pinches and throw it on the hot iron, taking care to hold the head over it, so as to breathe the fumes freely not only through the nostrils but also through the mouth. I have often employed the smoke of opium, obtained by another method, which consisted in mixing a solution of opium with agaric prepared and properly dried. By soaking a certain quantity of amadou in a known quantity of this tincture, we can administer a dose as exact as of the powder itself. The amadou so prepared is lit and burnt under the nose of the patient. In fine, I do not hesitate to advise the employment of opiate fumigations in all cases of neuralgia occupying the frontal, temporal, or zigomatic regions, either of a con-

tinuous or periodic character; although it is to be remembered that it is above all in the catarrhal neuralgia, often complicating coryza, that the employment of my method is found to succeed most satisfactorily.—*Dublin Hospital Gazette* from *Gaz. Médicale.*

Epigastric Neuralgia. By Dr. Lees.—William Swan, ætat. 38, stout, healthy-looking man, of temperate habits, and in good employment in Mr. Roe's distillery, was admitted, under my care, to the Meath Hospital, complaining of tenderness and intense pain on the slightest pressure in the epigastric region, over a space about the size of a five-shilling piece, immediately under the ensiform cartilage. On the slightest touch of the hand his face assumes an expression of great agony, and is bedewed with cold perspiration. He says that he never experiences pain in the stomach, but that, after eating, he has been often obliged to lift his shirt from contact with the epigastrium, as the tenderness caused by even its opposition was intolerable, although it was not aggravated by increasing the pressure. The state of his general health and appetite is good; functions natural; tongue clean; bowels regular; no thirst; nausea, or vomiting. He does not suffer from flatulence, has no headache, but is very low spirited. The circulation is languid; pulse 56; heart's action feeble, but regular, and without any murmur; the abdominal muscles are in a state of constant tension, hard and rigid; there is no evidence of any tumor, nor abnormal pulsation in the epigastric region; neither pain nor tenderness in the back, nor in the course of the intercostal nerves. His easiest posture is on his left side, with the right leg drawn up. When he lies on his back, with the right leg extended, the spine is arched, so that the hand can be passed freely under it, but it becomes quite flat in contact with the bed, on the leg being flexed. The urine is of a natural appearance, sp. gr., and reaction; no visible sediment, but on microscopic examination there are seen numerous very minute crystals of oxalate of lime aggregated in long masses.

He could not assign any cause for his complaint, except that he has been constantly employed in a very dusty meal-room, but he has neither suffered from cough, nor from any difficulty of respiration.

Tincture of aconite was applied over the tender part, but without any relief. I then ordered:—

℞ Infusi Valerianæ,
Cinchonæ, ā ā ʒiij.

Sumat ʒi. ter in die; a small blister over the part, and to be dressed with Acetate of Morphiæ ointment, gr. i ad ʒi.

He was allowed meat every day, and advised to walk about and amuse himself. Under this treatment he rapidly improved, and was nearly quite free from his complaint when I resigned him to the care of Dr. Stokes. He, however, unfortunately relapsed, but was cured eventually by continuing the same medicine, and by the repeated application of leeches over the part. If the subject of the above case had been an unmarried female, I should have had little hesitation in regarding it as one of those anomalous forms of hysterical affection occurring in that class of persons; but I confess that, at first, I felt in doubt as to

the cause of this man's sufferings. The superficial seat and character of the pain evidently showed that it was not gastralgia, while the absence of thirst and of fever satisfied me that there was no inflammatory action in the mucous membrane of the stomach. There was no evidence of inflammation in or under the skin, nor in the sheath of the rectus muscle, as occurred in a case under the care of Dr. Neligan, and which presented nearly similar symptoms. My case was examined carefully for aneurism of the abdominal aorta, for disease of the spine, and for psoas abscess, as the peculiar arching of the spine in the horizontal position led us to suspect that there was some change of structure in these parts which might account for this occurrence; but the most careful investigation by Dr. Stokes and myself could not detect any evidence of disease there, nor in the circulatory or respiratory apparatus. I, therefore, came to the conclusion that it was a form of neuralgia, and the result of my treatment satisfied me that I was right.—*Dub. Hospt. Gaz.*

Chloroform in Fever. Dr. Gordon, of the Hardwicke Fever Hospital, resorts to the use of chloroform to subdue the nervous irritation in fever, and obtain sleep. He remarks:—

To the different means which have been made use of for this purpose, I would now add the internal administration of chloroform. I have used it with the happiest results when all other means had failed, and I can speak with confidence of its certain and speedy action. The following case affords a good example of its effects, and the mode of its administration:—

Patrick Dempsy, aged 25, was sent from Santry to the Hardwicke Hospital, on the 8th of December; he had been eleven days ill of fever; his body was covered with dark-colored maculæ; his pulse was 110, and very weak, his speech muttering and indistinct; he has subsultus in both upper and lower extremities. His head was shaved, he was ordered the bark mixture of the hospital, and half a pint of wine. Late in the evening he began to rave violently, and could not be induced to remain in bed; he was ordered large doses of hyoscyamus, and the back of his head was blistered; he was so violent as to require the use of a strait waistcoat all night. December 9.—Has not slept since admission. Pulse 132; very weak. He continues constantly muttering and raving. Tongue dry and brown; eyes slightly suffused; head not very hot; respiration short, frequent, and irregular. He still requires the strait waistcoat to keep him in bed. He was now ordered twenty-five minims of chloroform in a draught, to be repeated in an hour. After the second draught his agitation and restlessness ceased, and the waistcoat was removed. He dozed a little through the day, but only for a few minutes at a time. Towards night he again became restless and delirious; the same quantity of chloroform was again administered, and repeated in an hour, when he fell into a sound sleep, which continued for nine hours. He awoke perfectly sensible; the subsultus had ceased, and his pulse had fallen to 100. He continued to improve, and in a few days was convalescent.

In this, and other similar cases, chloroform acted by producing

anæsthesia of the sensory nerves, and exerting a paralyzing influence on the muscular fibre; and this it appears to effect without depressing or deranging the nervous force, as is the case with sedatives in general, while it is altogether free from the objection of causing depression of the action of the heart, as is the case with some special sedatives. My colleague, Dr. Corrigan, has just treated a somewhat similar case by the internal administration of chloroform. I had an opportunity of daily witnessing the progress of the case; and, by his permission, I here append it.

Denis Behan, æt. 20, a porter from High street, was admitted into the Hardwicke Hospital, January 4, 1854, the fifth day of his illness. On the sixth day he was thickly covered with bright maculæ. His tongue was loaded, but moist; his pulse 112; respiration 22; no abnormal sound in the lungs; no tenderness of abdomen. He is reported not to have slept for two nights. His eyes are red and injected, and his head hot. His head was shaved and cold lotion applied. Seventh day.—Pulse 116; respiration 28; slept but little. Eighth day.—Pulse 120; very feeble; respiration 32. Ordered bark and wine. Ninth day.—Pulse 126; very feeble; respiration 32; head hot; constantly raving, and getting out of bed; no sleep; subsultus of hands; tongue dry; great difficulty of utterance. Vesicatorium nuchæ; eight ounces of wine. Tenth day.—Pulse 130; weak; raving continually; difficult to restrain; requiring the strait waistcoat; constant talking; no sleep; tongue brown and dry in the centre; thirsty; eyes very congested; pupils dilated. Chloroform was now administered by inhalation, without any other effect than the pulse being slightly reduced in number. The patient was in no way quieted by it. Four leeches were now applied to the temples without any good effect. At 5 P.M. he took ʒss. chloroform by the mouth, and continued it every second hour till 11 P.M., when, as he did not sleep, and the delirium continued, he took a similar dose of chloroform every hour through the night. At 3 A.M. he was somewhat quieter, but the same dose was continued every hour till 8 A.M. Eleventh day, 10 A.M.—Much quieter, but has not slept. Pulse 110; pupils natural size; subsultus nearly gone; tongue brown all over; sordes on teeth; bowels free; urine high colored, sp. gr. 1·020. Another dose of chloroform in the same quantity was again administered; about twenty minutes after its exhibition he fell into a quiet sleep, which lasted two hours. Shortly after waking, he took another half drachm of chloroform, when he almost immediately fell asleep, and awoke after several hours much refreshed and quite collected. His return to health was further indicated by the immense quantity of nitrate of urea, which an excess of nitric acid deposited from the urine.

In the above case the chloroform was longer in producing the effects than in any instance in which I have yet used it. We learn from it, however, that we are not to be discouraged by the apparent failure of the first dose or two in procuring sleep, for, as in the present case, although actual sleep may not be at once procured, we may expect that a state of calm and quietness will be induced, which would soon be followed by "*Nature's sweet restorer, balmy sleep.*" We learn also

from this case, that the inhalation of chloroform is, to say the least, useless in procuring sleep in cases of cerebral excitement in fever. I had, on one occasion before, in the Hardwicke Hospital, fully tried this mode of administering it; its inhalation was followed by general convulsive movements, very similar to an epileptic seizure, and I have not since administered it by inhalation in any similar case. Dr. Corrigan carefully tried the effect of inhalation three times in the above case; each time without any good effect.—*Dub. Hosp. Gaz.*

Treatment of Delirium Tremens. Dr. Peddie (*Monthly Journal*) deprecates the employment of opium and stimulants in the treatment of delirium tremens and gives a decided preference to antimony: —The treatment recommended by Dr. Graves, to which I have already referred, is advocated on the ground that opium is highly dangerous in the early part of the paroxysm. His rule of practice is to begin with tartar emetic alone, with the view of combating vascular excitement, then to add a little opium, and gradually to increase the quantity, keeping its action carefully guarded and controlled by the antimony, until at last, when engorgement of the cerebral vessels is no longer to be apprehended, to use opium alone. If opium is to be given at all in delirium tremens, this is certainly the safest mode of prescription. For some time I tried it, but from considerable previous experience of the beneficial effects of antimony in this disease, I soon became convinced that it was from that agent solely, especially its effects in the first stage, that ultimate benefit was derived; that the relative quantity of opium employed at first is too small to counteract the power of the antimony, or to produce any notable effect whatever; that in ordinary cases, ere the time arrives for increasing much the amount of the opium, the affection has run, or nearly so, its natural course, and the period for the salutary sleep commencing is at hand; and that when a greatly-increased dose is given before this much wished-for change has arrived, there is a proportionate increase of excitement and consequent delay of its occurrence.

From these considerations, I resumed the use of the antimony alone; and, during the last ten years, I have treated upwards of eighty cases of the genuine disease, many of them very severe ones, with uniform success,—not only in regard to the speediness of the immediate recovery, but the comparatively thorough restoration to a healthy condition of body and mind;—as much so at least, as could possibly be expected in individuals, many of whom had been, and were likely soon again to become, habitual drinkers. The dose which I have been accustomed to give has ranged from one quarter to one-half of a grain, in simple solution, every two hours, sometimes at shorter intervals, according to the degree of excitement and irritability. The action of the antimony appears to be chiefly sedative. Its direct influence is to reduce the vascular excitement of the brain, soothe the nervous system, and diminish muscular power; and its more indirect action is exerted on the functions of the skin, kidneys, and intestinal canal. In two or three instances only have I found it necessary to suspend its employment, in consequence of diarrhœa and hæmorrhagic discharge from the bowels;

and in these cases I substituted digitalis and ipecacuan with marked benefit; and I do not recollect of ever seeing it produce continued vomiting, although occasionally I have found the first or second dose eject from the stomach a quantity of bile. It is for the sake of its emetic effect that, in Germany and America it has been prescribed in large oft-repeated doses, even from four to seven grains every hour, and that, too, according to report, with benefit. But although there is, doubtless, extraordinary tolerance of this agent in delirium tremens, I do not think that the use of such, or any other very heroic means, are warranted. Bleedings, large opiates, or large doses of tartar emetic, are all, although certainly not equally, unsafe, and therefore to be deprecated. An antimonial course of treatment in moderation, and with the design I have indicated, gently diminishes excited action, induces weariness of muscle, general nervous exhaustion, and mental languor. It thus removes all hindrances to the occurrence of the salutary sleep. It prepares the way for it, not by forcing, but by favoring it; and when the individual, exhausted, seeks his couch, and finds repose, that goes on, not as a drugged sleep, but as a purely natural and profound repose, from which he awakes with restored reason and muscular control.

Success of different methods of treating Cholera. By JOHN CRAWFORD, M.D., Physician to the Glasgow Cholera Hospital.—The different modes of treatment employed in the various forms of choleraic disease, with their respective results, are exhibited in the following table:—

Table showing the Results of Five different Modes of Treatment.

		1. Salines alone.	1. Salines with adjuncts.	3. Calomel.	4. Stimulants.	5. Astringents with opium.	Total.
Diarrhœa		2	9	0	1	26	38
Cholera		13	53	13	6	29	114
Collapse		5	32	12	24	0	73
							225
Cured	Diarrhœa	2	9	0	1	24	36
	Cholera	13	46	7	1	24	91
	Collapse	0	7	3	2	0	12
Died	Diarrhœa	0	0	0	0	2	2
	Cholera	0	7	6	5	5	23
	Collapse	5	25	9	22	0	61

In reference to this table, the following explanations may be necessary. In the first place, in all, or mostly all cases, counter-irritation to the epigastrium and abdomen, by means generally of sinapisms—occasionally of turpentine and ammoniacal epithems, and in many cases by blistering—was used. It must, therefore, be understood, that the cases in the first column shared the benefit of this practice, though "salines alone" were administered as medicines. The "adjuncts" of the second column were almost exclusively opiate enemata and stimulants—wine, brandy, and ammonia; the opiate enemata

being generally given in cases of cholera; and the stimulants—though cautiously—in collapse, or cases of cholera verging on that state. In choleraic diarrhœa, catechu and opium by the mouth were also occasionally used as adjuncts. The "salines" employed were the following:—1st. The combination of salts proposed by Dr. Stephens, viz., chlorid. sod., ℈i; bicarb. sod., ʒss.; chlorat. potass., gr. vii. These quantities dissolved in water were given every half hour, every hour, or every two hours. 2nd. The saline enema of the same writer; a table spoonful of chloride of sodium dissolved in warm water—employed only in collapse. And here, to avoid recurring to the subject again, I may mention that, although in several cases benefit appeared to be derived from its use, the advantage was only temporary, even when every precaution was taken to administer it properly. 3rd. The bicarbonate of soda, used as afterwards described. 4th. The same followed by acidulated draughts, as afterwards explained. And, lastly (chiefly in cases of choleraic disease, with irritability of the stomach), the ordinary effervescing soda-powders.

Calomel was given in various doses in different cases—grs. x.—℈i. and upwards, to produce in the first instance a sedative effect on the patient (a result which it generally failed to accomplish); in smaller doses, gr. i.—v., at intervals varying from a quarter of an hour to three hours; and in some cases in doses of gr. i. every five minutes. Upwards of 110 grs. have been continuously exhibited in this way.

Under the head of *stimulants*, I have also included—somewhat strangely, it may appear—the cases in which creasote and hydrocyanic acid were given to allay vomiting; but in almost all these cases, alcoholic stimulants were also given. That both creasote and hydrocyanic acid are useful in checking the vomiting in cholera (a combination of the two, 3 drops of the former and 2 of the latter, probably answers best) is undoubted; but in this respect they are far inferior to the bicarbonate of soda, and the creasote seems frequently to be very nauseous to the patient.

As to the effect of *stimulants*, the fourth column tells its own tale. It is however, to be noted, that a number of cases—hopelessly advanced in collapse, and even moribund—were admitted, in which nothing could be done beyond endeavoring to keep up the heat and administering stimulants. These cases, hopeless under any treatment, no doubt swell the mortality under this head; but as a general rule, alike in choleraic diarrhœa, cholera, and collapse, the exhibition of alcoholic stimulants, except in a limited number of cases, and then in small quantities, has not, so far as I have seen, been productive of benefit. They are not even agreeable to the patient. Even in the prostration of collapse, the habitual drunkard will be found to turn with loathing from the proffered wine or spirits, and beg for cold water instead.

The *astringents* referred to in the fifth column, as conjoined with opium, were principally catechu, aromatic sulphuric acid, and acetate of lead—combinations found principally useful in choleraic diarrhœa and the milder forms of cholera. On the whole, I am inclined to prefer the acetate of lead and opium in pill (diacetat. plumb. gr. ii,-iii., op. gr. i.) This was also found very useful in the diarrhœa which

occasionally recurs after a smart attack of cholera. In collapse, beyond an opiate enema, if the purging still continued, I would have nothing to do with the opium.—*Glasg. Med. Jour.*

Use of Subnitrate of Bismuth in Lavements.—By M. Trousseau. (*Dublin Hospital, Gazette.*)—There has been remarked of late, in France, a great amount of "diarrhœic flux," *i.e.* of intestinal catarrh, with the production of glairy and bloody evacuations. Two infants, in La Salle St. Bernard, were cured in a very simple way:—They were still at the breast; one had had cholera, marked by vomiting, diarrhœa, coldness, and well marked emaciation. Opium, nitrate of silver, and other remedies were given, by which the sickness was arrested, but the diarrhœa continued. The other child had not had vomiting, but there was a glairy diarrhœa, showing that the disease was limited to the large intestine. M. Trousseau prescribed a lavement according to the following formula:—Subnitrate of bismuth, two scruples; thick linseed-tea sufficient; the mixture to have the consistency of soup. The diarrhœa ceased immediately upon the administration of the lavement. It is known that M. Monneret gives, in similar cases, to infants as much as two or three ounces (?) of the subnitrate of bismuth daily. M. Trousseau rarely goes beyond four scruples,—very often he is content with half that quantity administered in water, or in the form of pastilles. Dr. Lassegue, chief of the clinique of the Hôtel-Dieu, first entertained the idea of employing it as a lavement in cases of inflammation of the colon, from having witnessed its beneficial effects in certain diseases of the skin, in which some of the subnitrate, mixed with albumen or thick linseed-tea, spread upon a poultice, and rendered humid by the application of glycerine, was brought into contact with the affected parts. M. Lassegue was thus led to its employment in affections of the large intestine, and obtained results which deserve to be recorded, the more so, as the remedy being harmless, may be applied without fear in all similar cases.—*Jour. de Méd. et Chir. Prat.*

SURGERY.

Advantages of operating in certain cases of Hare-lip at a very early age. By Henry Smith, Esq.—It is obvious in the first place, that an infant with hare-lip cannot so readily take in that nourishment which is offered by nature. If, however, the deformity be remedied, the child will be placed by the aid of surgery in a much more favorable condition to receive the nutriment afforded by the mother's breast. It is plain, too, that the deformity excites most unpleasing and painful sensations in the mind of the mother and those around her; and, if the source of this anxiety can be removed at once, it is of great importance that it should be accomplished.

A third argument in favor of very early operation for hare-lip consists in the circumstance, that as the growth of the child is very rapid in the first period of life, the lip, with other structures of the body at this time, becomes more fully and fully developed, and thus,

after an operation has been successfully performed, there will be a much less chance of subsequent deformity in the part. But it is in those instances where the harelip is complicated with a more or less extensive fissure in the palate that an early operation for the cure of the former is so imperatively demanded, and is attended with some beneficial results; and it is to this point especially I wish to draw attention, because, although in some recent works of surgery an operation at an early period after birth is recommended, (and I may especially allude to the *Practical Surgery* of Professor Fergusson, and to the *Surgeon's Vade Mecum*, by Dr. Druitt,) the most important reason for such a proceeding is not alluded to. And I now refer to the effect which is produced upon the fissure in the hard palate by the approximation of the edges of the lip. As long as the hare-lip remains in its primitive state, there can be no pressure upon the hard tissues underneath; but, if it be united by the surgeon, a considerable amount of pressure is exerted upon the edges of the cleft in the palate; and, in a child aged only a few days or weeks, the bones are so soft and compressible, that they are to a great extent influenced by the pressure which constantly obtains, and in the course of time the fissure becomes either entirely closed or diminished in size to one-third or one-fourth of its original extent.

I have had various opportunities of noticing this effect in instances where a very early operation has been performed for hare-lip, complicated with more or less extensive fissure in the hard palate; and so convinced am I of the importance of performing the operation as soon after birth as possible, that I invariably recommend it. And it has fallen to my lot to be called upon to perform the operation very soon after birth, where there has been, at the same time with the hare-lip, considerable malformation of the palate; and I have been able to notice the result some length of time afterwards. More than three years ago I operated upon an infant only four days old; here there was an extensive fissure extending through the hard palate into the nostril. I had an opportunity of seeing this child only a few days since, and the opening in the front portion of the palate was closed up. In this case the soft palate was extensively cleft, and that still remains open; but the parts altogether are in such a condition that, some years hence, they may be completely closed by staphyloraphy. A few weeks since, a little patient was brought to me, on whom I operated at a very early age, two years ago. In this instance there was a fissure in the hard palate, and great deformity of the jaw, a portion of which I removed at the time. There is now an admirably developed upper lip, and complete closure of the opening which existed in the palate. In another instance, where I operated at an early period, there was an immense chasm running through both soft and hard palate into the nostril. I had an opportunity of seeing this patient a few days since, and found that the anterior portion of the cleft was much diminished in size. The operation was done more than a year ago.

Mr. Bateman, of Islington, who pays great attention to this matter, operated, three years since, upon an infant only four hours after birth. In this case there was an extensive fissure in the palate. This gentle-

man kindly showed me this case, and, in reply to my inquiry regarding the effect which the operation had had upon the palate, he wrote word the other day that the child had died of hooping-cough last winter, but that its mother remarked that before death the fissure, which had at birth been 'so large that she could put her thumb into it, had contracted so much that it would scarcely admit the edge of a sheet of writing paper.' About a month since I operated upon an infant only six days old, with perfect success. In this case I was partly induced to perform the operation at this early period because there was a fissure in the hard palate, extending into the nostril. I have little doubt that, in time, if the child lives, the fissure will be completely closed.—*Med. Times & Gaz.*

Treatment of Articular Diseases by Actual Cautery.—By JAMES SYME, ESQ.—CASE I.—*Omalgia; Application of the Actual Cautery; Cure.*—Margaret Ashton, æt. 25, admitted October 25, 1853; a servant; has generally enjoyed health, and has a very robust appearance. Four months ago, after exposure to wet and cold in washing, she had a severe fit of shivering, and was seized a few days after with pain in the right shoulder, just below the acromion, so severe that she could scarcely lift the arm; this lasted about twelve hours, and was followed in the course of the next day by intense pain in the left shoulder, below the back part of the acromion. From that day till her admission she was unable to raise the arm; the pain was for the first two months extreme, keeping her as if "in the fire all night," and banishing sleep almost entirely. During the last two months she has rested from work, and has suffered less. On admission she complained of constant gnawing pain in the left shoulder, and extending down the limb as far as the elbow, and sometimes to the fingers; when in the sitting posture she held the affected limb with the other hand, to ease the pain; the arm was also affected with a feeling of numbness and weakness; and although the shoulder was not very tender on pressure, and very gentle passive motion of the arm could be performed, through a considerable angle, without pain, yet any attempts on her own part to move it, produced great aggravation of her sufferings. As a result, no doubt, of habitual disuse, the muscles about the shoulder were much atrophied, and this caused a remarkable apparent prominence of the bony points, viz.: the spine of the scapula, the acromion, the anterior border of the outer part of the clavicle, and the head of the humerus. The shoulder had an appearance that suggested at first sight the idea of dislocation.

On the 3d November, the patient being under the influence of chloroform, Mr. Syme cauterized thoroughly the skin over the anterior and posterior aspects of the joint, rubbing a red-hot cautery iron freely backwards and forwards four or five times over each part. It had the effect of raising and rubbing off the cuticle, but did not char the skin. An hour afterwards the patient was suffering but little pain. *Nov.* 4.—Said, with a smiling countenance, that she slept well last night, the first time for four months, and feels now no pain save that of the burns. *Nov.* 5.—A poultice was applied yesterday; the pain

of the burn is now gone, and she feels *no pain at all.* Says that she has not only lost all pain, but also that the feeling of numbness is gone from the limb, and that she seems to have more power in it. The burned parts present a white sloughy appearance. The poultice was continued till the sloughs separated, when simple cerate was substituted for it, with the view of retarding, rather than promoting cicatrization. *Nov.* 12.—To-day she has been trying to lift the arm, and felt none of the old pain in the attempt.

Jan. 31, 1854.—She has to-day left the Infirmary. She has for some time past been gradually acquiring more and more power in the limb; she can move the arm backwards and forwards for a considerable extent, and even raise it slightly. The movements of the forearm are free; there is no tenderness whatever about the shoulder. The return of the use of the limb has been accompanied with a restoration of the fulness of the muscles, so that there is now no difference between the contour of the two shoulders. She continues quite free from spontaneous pain. I saw her again towards the end of May. She was still quite free from pain, and there remained only some stiffness about the joint that prevented her from raising the arm to the full extent.

Case II.—*Disease of Shoulder Joint; Actual Cautery; Cure.*—Lily Kay, æt. 50, admitted March 23, 1854. Has generally enjoyed good health, except that for the last twelve years she has suffered inconvenience from what she supposed to be rheumatism in the right shoulder, characterized by shooting pain, occurring more especially when she attempted to lift any thing. In January last the limb became completely disabled from increase of the pain, which now assumed a gnawing as well as a shooting character, and also began to be felt in the elbow joint, and in the arm, forearm, and hand. At this time she first observed the existence of swelling about the shoulder joint.

The pain continued to increase till the time of her admission into the Infirmary, when it was exceedingly severe; not constant, but frequently keeping her awake at night. She was unable to raise the arm from the side, and had a sense of weakness in the limb, and some stiffness of the hand. There was considerable swelling about the shoulder joint, which was tender on pressure, particularly at the anterior and posterior aspects. On the day of admission Mr. Syme applied the actual cautery freely over the anterior and posterior parts of the joint, the patient being under chloroform. From this time she lost the old pain entirely, or at least was uncertain whether that which she still felt was not altogether that of the burn; and though the pain of the burn was considerable till the sloughs separated, yet it was much less distressing than the old pain, for which it was substituted, so that she slept much better than before the application of the cautery. The sloughs came away on the 1st April, on which day she had a slight return of the old pain near the wrist, but it has not occured again, and she is now (4th April) quite easy. The swelling about the shoulder has almost entirely disappeared, and there is little, if any, tenderness; the sores are granulating healthily. *April* 14.—Continues quite easy. She was discharged on the 27th April; I saw her about a month after, and she still continued free from pain.

Case III.—*Disease of Wrist Joint; Actual Cautery; Cure.*—Janet Archibald, æt. 32, admitted November 2, 1853. Rather a weakly subject. In October last she "took a shivering," without any particular exposure to cold, and a pricking pain came on in the left wrist, which increased for a time, and was accompanied with swelling. She applied poultices medicated with acetate of lead, and under their use a great improvement had taken place at the end of five weeks, when she got fresh cold in it, as she says, and it became excessively painful; the pain continued ever after till her admission, and although its extreme severity was then somewhat mitigated, yet it kept her awake a good deal at night; it was partly dull and heavy, and partly of a shooting character, and extended down through the hand and fingers. There was also an occasional tingling sensation in the fingers, and a sense of unnatural weight in the limb. A great degree of swelling existed about the wrist-joint, particularly on the dorsal aspect, and this part when manipulated gave a feeling very like that of fluctuation, so that her medical attendant had been desirous to open what he had supposed a collection of matter there.

Mr. Syme regarded the condition of the wrist as almost hopeless, but as he thought suppuration had not yet occurred, he determined to give the limb a chance with the actual cautery, which he accordingly applied on the dorsal aspect in two lines, crossing one another over the articulation. The pain and swelling both diminished greatly during the first four weeks after the cauterization; some aggravation of the symptoms then occurred for a time, but as the sore was still open, Mr. Syme thought it unnecessary to interfere further, and a gradual improvement afterwards took place, till at the time of her leaving the Infirmary (Feb. 14, 1854) there was scarcely any swelling and a very little pain. I saw her again on the 10th of June, there was then no swelling whatever about the wrist, and no uneasiness except a painful feeling of weakness when she exerted it much.—*Monthly Journal.*

Water Strapping as a Surgical Appliance.—By C. Holthouse, Esq.—The object of the author of this paper was to direct the attention of the profession to the superiority of wet-strapping over ordinary diachylon plaster, in the treatment of ulcers and certain cutaneous affections of the extremities, as advocated by Mr. Chapman, and to recommend its adoption in injuries and diseases of the joints, and in dressing stumps after amputation. The advantages of this application over plaster are:—1. Its innocuousness, being entirely free from the irritating effects of the latter, and never producing inflammation of the skin, or the eruption of pustules, or vesicles. 2. The comfort the patient experiences from its application. 3. Its cleanliness. 4. The ease and quickness with which it is removed, from its not adhering to the hairs of the part. 5. Its cheapness. 6. It may be made the vehicle for the application of remedies.

The material made use of may consist of linen or calico, bleached, or unbleached; and the older it is, provided it be not rotten, the better it answers the purpose. It must be cut, or torn into strips of

varying length and breadth, according to the part to which it has to be applied; the strips must be then immersed in water till thoroughly saturated, when they are fit for use. If the disease to be treated be an ulcer of the leg, the strips should be about two inches in breadth, and of a length exceeding somewhat the circumference of the limb; they should then be applied exactly in the same manner as plaster, each piece overlapping a portion of the one immediately below it; in fact, the directions given by Mr. Baynton for strapping the limb, may be strictly followed in the application of the water-strapping, save and except that his directions to remove the hair from the part may be dispensed with; a roller must afterwards be applied in the ordinary manner.

Four cases, in illustration of this method of treatment, and of its beneficial results, were then given; one being an ulcer of the leg of fourteen years' standing, that had resisted repeated attempts to heal at other hospitals; another, a case of eczema impetiginodes, affecting both lower extremeties, and of three years and a half duration; a third was a case of a crushed thumb, followed by gangrene and subsequent amputation; and the fourth was an amputation of the thigh, for extensive disease of the knee-joint and upper third of the leg.—*Lancet.*

Un-united Fractures treated by Ivory Pegs.—Mr. Stanley concludes his lecture by citing two cases in his practice by the ivory pegs: one very successful, the other now in St. Bartholomew's, not so encouraging; but where it would appear that the process of reparation was prevented by a cushion of the crureus muscle getting between the ends of the bone, as shown by the leg after amputation, performed last month (June 1854), a large quantity of bony matter thrown out round the pegs.

Case I.—Among his notes Mr. Stanley finds the following case:—About four years ago a man was brought into St. Bartholomew's (Bentley's ward): he had been working on the railway, and sustained a very severe injury, fracture of a compound character of both tibia and fibula, if we say he was lying on his back eight months; and at the end of this period, though the external wound was healed up, yet the union of the bones was not complete; it is quite sufficient to indicate his condition and the very tedious nature of the case; in a word, it seemed one of those cases which, to Pathological Society-men, would seemed doomed never to get well. The man at length got about on crutches, but it was with most dreadful pain and torture of the limb, so that he at length gave up, wishing his leg to be cut off. It was decided, however, in consultation, to do something for the cure of un-united fracture. The first plan tried was a succession of blisters for a month with no equivalent benefit; the limb was then encased in strong leather, stiff, and about as immovable as the limb of an Egyptian mummy; but this plan did not prove either very successful. After ten or twelve weeks the question came up really of amputation, but this time with the rather fanciful alternative of ivory pegs, as suggested by Dieffenbach. The ivory pegs succeeded perfectly; and Mr. Stanley has the pleasure of seeing the man constantly brought to new life

and activity by four of these rather incongruous remedies borrowed from a cribbage-board! Four were inserted, one in each bone, at each end of the fracture: small holes drilled with a common drill, respectively, in tibia and fibula, then the pegs tapped well in with something like an auctioneer's hammer. And here Mr. Stanley said, perhaps, the most curious part of the matter worth observing, is in a physiological point of view, observed also in a similar case at Leeds, one peg was entirely absorbed, the other appeared eaten away like carious pieces of human bone! When withdrawn, the small head of the ivory peg left out of the bone through the integuments was not changed at all: the successful issue of the case (after a whole year's unsatisfying ordeal in hospital) was most grateful, and the man left town quite well. In the second case, marked by all Mr. Stanley's kind attention and care, the result has not been so satisfactory: it has been a case brought into hospital of long standing, of un-united fracture, high up in the shaft of the femur, both ends freely moveable and grating together. He first tried pad and splints, next enclosed the limb in stiff leather case twenty months. After injury the question of amputation or ivory pegs, as in the former case, was again considered: the pegs were tried, but the quantity of bone thrown out was of no use, and amputation, as a last resource, was performed.—*Dublin Med. Press.*

DISEASES OF FEMALES.

Instrumental Treatment of Uterine Displacement.—[This subject was recently brought before the Academy of Medicine, Paris, by the report of two fatal cases from the use of the Uterine Catheter, one by Dr. Broca, and the other M. Cruveilhier. The subject created great interest and a committee was appointed to report upon it; the report was drawn up by M. Depaul. We copy a condensed statement of it from the *Edinburgh Monthly Journal.*] In commencing his report, M. Depaul undertakes to prove: 1. That uterine affections, usually attributed to displacement, have an entirely different origin. 2. That in most of the alleged cases, another more frequent pathological condition, which produces uterine symptoms and even sometimes causes displacement, has been overlooked. 3. That science possesses a simple and rational treatment for displacements, as efficacious, or more so, than intra-uterine pessaries. 4. That the facts adduced in favor of the treatment by these instruments, only show their entire inefficiency; and 5. That we must take into serious consideration the numerous facts which prove that the most formidable affections and even death itself, may be the consequence of these manœuvres, which are besides, on their first aspect, *repugnant to common sense!* (*repugnent à la raison.*)

Instruments.—Before proceeding to these points, the reporter specifies the instruments used in the treatment of uterine displacements, to which allusion is made. These are of two kinds (sufficiently well known in this country): 1. *The Uterine Sound*, of Simpson and Kiwisch (Recamier and Amussat had previously used a similar in-

strument). This instrument, which is of undoubted service in diagnosis, is also used to restore the displaced uterus to the normal position; but it is never left permanently in the uterus. 2. The *pessaries*, of different kinds which are used for the replacement and permanent support of the uterus, remaining for a considerable time in its cavity. These are known as Simpson and Kiwisch's, although the original idea of the invention is claimed for Amussat and Velpeau. They are—1. The wire pessary, or pubic pessary, having a stalk to support the interior of the uterus, in connection with an apparatus resting on the pubis. 2. The spring pessary. 3. The ball pessary, with the stalk for introducing it. 4. The galvanic pessary, made of zinc and copper. 5. The dilating pessaries, used in obstructive dysmenorrhœa, sterility, etc. The three last instruments consist of a metalic stalk which is passed into the cavity of the womb, and is fixed on an oval disc or ball. Although the use of the uterine sound is not without danger, it is principally against the intra-uterine pessaries that the criticisms of M. Depaul are directed.

Pathology, etc.—The reporter then enters on the first division of his subject: viz., the Pathology of Uterine Displacements. *What is the normal direction of the uterus? What are its displacements? Do these displacements produce the symptoms which have been ascribed to them?* M. Depaul does not agree without reserve with Cruveilhier, and others who maintain that the uterus has no certain direction; and he rejects the opinion of Boulard and Verneuil, that ante-flexion is the normal position of the womb. He maintains that however liable to vary from accidental causes, the uterus is placed normally in the direction of the axis of the brim of the pelvis. When the axis of the uterus is more inclined in any one direction, we have either *ante*, *retro*, or *latero-versions*. When the whole uterus is pushed from its position, we have total *displacement* (*refoulement*), which may also take place *forwards*, *backwards*, or *laterally*. When the uterus is bent on itself, *ante*, *retro*, or *latero-flexions*, are produced. There are also, more rarely, *flexions of the neck on the body* of the uterus; and *inflections* of the uterus, where it is curved once, or twice like the letter *S* italics. Another condition which may exist alone, or combined with the preceding, is the *descent* of the uterus (*abaissement*), generally the inferior extremity, but sometimes the middle, or possibly even the upper part of the uterus passing low down into the pelvic cavity. These displacements by descent appear to have been overlooked in France by those who used the "instrumental treatment" ("*traitement mécanique*").

These different displacements are so common, that more than half probably of the female sex are subjects of them, and would require treatment, if these conditions were really diseases. But such is not the case; their influence has been greatly exaggerated, and it may be shown that the *symptoms attributed to these deviations belong to some other pathological condition.* In a critical analysis of M. Valleix's cases of displacement, treated by the intra-uterine pessaries, concomitant disease of the uterus, as hypertrophy and engorgement, or granulations and ulcerations of the cervix, leucorrhœa, etc., are found to

have existed in the largest number; in a few, the uterine deviation discovered only after death, had produced no symptoms during life; and in some the morbid symptoms remained after the uterine displacement had been corrected. The cases of M. Gaussail analyzed in the same way, are similarly complicated. The symptoms of all the patients were much alike—viz., uneasiness in walking, pains in the loins, white or sanguineous discharges, constipation, and difficult micturition, and disorder of digestion. Yet all these affections are ascribed by M. Valleix and Gaussail exclusively to the displacement, taking no account of the hypertrophy, ulceration, or other diseased state of the uterus, which existed at the same time. The facts of M. Piachaud (pupil of M. Valleix) are of the same inconclusive stamp as the preceding; but he adds that he has witnessed dangerous (*graves*) hæmorrhages, and in two cases perforation of the uterus in consequence of the use of the pessaries!

If in these cases, complicated with other lesions, the symptoms cannot be with certainty referred to the deviation exclusive of the lesions, still less is there evidence to show that the deviations *alone* give rise to serious symptoms. MM. Dubois and Lisfranc declared that displacements were innocuous, unless attended with pathological lesion or chronic inflammation. In a number of cases of displacements of all kinds observed by M. Gosselin, at the Lourcine, none of the women had any uterine complaint whatever; in a number of other cases, where uterine pains existed, there was no displacement, and the pains were owing either to inflammation or neuralgia; and in a third set of cases, where both uterine pains and displacement co-existed, the pains ceased after repose, and the use of antiphlogistics, narcotics, etc., although the displacement persisted. In 27 cases of simple deviation, observed by M. Depaul, only two had any uterine symptoms whatever; the one (anteflexion) had more frequent micturition, and a sense of weight after long walks; the other (descent of uterus) had pains in the inside of the thighs, and a feeling of weight in the pelvis, and that only, after fatiguing exertion. Moreover, in diseased states of the uterus, if the morbid condition of the organ is cured, the painful symptoms entirely disappear; and every day's experience proves that all the uterine symptoms may be produced by lesions of the organ, unattended by any displacement whatever, to which they could possibly be ascribed. For the truth of the latter statements, the reporter appeals to his own and to the general experience of the profession.

With regard to the influence of the dilating pessaries on sterility, M. Depaul has similar objections, viz.: that in the facts observed no adequate account has been taken of concomitant pathological conditions; and he maintains that displacements and flexions could only cause sterility when of very old standing, where the uterus is almost always atrophied, and dilatation consequently useless.

Admitting, however, that in a *very small number of cases* the mere displacement of the uterus may disorder the health, or may have an injurious influence on co-existing diseased conditions, M. Depaul believes that there exist numerous efficacious methods of treatment which do not compromise the health or life of patients. Of these

means, he enumerates, rest, fixation of the uterus (*immobiliser l'uterus*), taking off the weight of the intestines, avoiding tight-lacing, using hypogastric belts, and lastly, the different pessaries (not intra-uterine) particularly that of M. Garriel, composed of caoutchouc distended by air; also stuffing the rectum in cases of retro-version, as practiced by M. Huguier. He also mentions the pessaries in whalebone of Dr. Mayer, and that of caoutchouc of M. Joret. He discountenances the use of cauterizations to produce adhesions for the purpose of replacing the uterus.

Cases.—The most interesting inquiry in a practical point, however, is an examination of the *statistics of the treatment by intra-uterine pessaries.* The number of cases published amounts to about 180, and of these, according to M. Valleix, 129 were cured. A result, at first sight so strongly in favor of the treatment, is, however, completely reversed by the history of the cases themselves. The reporter here gives a short analysis of M. Valleix's cases, twenty in number, of five cases by M. Gaussail, and three by M. Piachaud. With regard to Dr. Simpson's practice he was unable to give the results, as that gentleman, when applied to, had, he said, communicated only assertions without proofs; he could only, therefore, give an idea of his success from the information received from indirect sources. It would be tedious to give the whole of these cases; we subjoin a few to show the method of analysis, and how inconclusive the cases are or rather how they are turned into evidence against the treatment they were published to recommend.

Valleix's cases.—Fifth case. C., æt. 31, some years after accouchment suffering from hysteria, leucorrhœa, fatigue in walking, and weight in the pelvis, for which she was treated by repeated leeching. Coming under M. V.'s care in 1851, she was pale and anæmic; the uterus was voluminous, not painful, lying tranversely forward. *On the anterior lip, which was red and voluminous, there was a prominence of a deeper color, presenting in the middle a little white point.* The neck was cauterized on three successive occasions with the acid of nitrate of mercury. Afterwards, catheterism was practised six times, leaving three or four days interval. At the end of a month the uterus was replaced in its normal situation. *The cauterisation was then resumed and repeated thirteen times during nearly two months.* There was no accident, and the cervix was cured. That cure, ascribed to the uterine sound, ought plainly to be attributed to the cauterizations. Several of the other cases are very similar to this.

Ninth case. Anteflexion with hypertrophy, the uterus being heavy, with little mobility, the sound penetrating seven centimetres. The intra-uterine pessary (*redresseur*) having occasioned dangerous symptoms, an energetic antiphlogistic treatment was employed, in consequence of which the patient was cured.

Thirteenth case. Retroversion, and chronic metritis with ulcerations and numerous red granulations. The intra-uterine pessary was applied once, and left in for a fortnight; long after this the patient underwent treatment for anæmia, neuralgia, and for a fissure of the anus which had been overlooked at first. The cervix was cauterized for several months.

In others of his cases there appears insufficient evidence of the state of the uterus, or even of the cure which is reported to have ensued. M. Gaussail's cases are generally complicated with metritis, and such varied and prolonged methods of treatment were used, that it is difficult to ascribe the cure to any one in particular. His fifth case he concludes by admitting that "*the treatment* (*by intra-uterine pessaries*) *had produced no amelioration,—the patient felt more fatigued in walking, standing, or by simple movement of the arms. The modifications in the position of the uterus were hardly recognizable. The patient and the medical man were convinced that this treatment could no longer be endured.*" M. Piachaud's cases have already been alluded to. In addition, two cases are quoted, observed by M. Gaube, in which all the morbid symptoms were cured, although the use of the pessary failed to replace the uterus.

The last case given is one of anteversion, where the patient, dismissed cured from hospital by M. Valliex, returned next day in as bad a condition as ever. Scanzoni, in Canstatt's Jahresbericht, states that in twenty cases of displacement, where he tried the mechanical treatment, he did not once obtain a permanent cure. It appears, moreover, that M. Valleix has been continually *improving* the intra-uterine pessary, by diminishing the length of the uterine stalk, till at last he has given it up altogether, and uses only the temporary introduction of the uterine sound, but always, he assures us, with the same successful results.

Having examined the statements of the principal partizans of this mechanical treatment in France, viz.: MM. Valleix and Gaussail, etc., M. Depaul proceeds to show that this treatment has no greater favor or success in other countries, particularly Great Britain. In regard to Dr. Simpson's practice, he quotes from an eye-witness, that although in many cases the relief is immediate, and in a few instances the instrument can be worn with impunity for months or even years, yet in *the great majority* of *females* some morbid state of the uterus or its appendages, etc., comes on; hæmorrhages, rectal fissures, ulcerations of the rectum, metritis, metro-peritonitis, pelvic abscesses, were pretty frequent consequences, and more than once death was the final result. Drs. Churchill, Ashwell, and Gream's statements are quoted as to the dangers of the treatment, together with Dr. Robert Lee's case, where the pessary, or, as he calls it, the impaling machine, was extracted from the uterus. Two fatal cases of peritonitis caused by the pessaries, described by Dr. Oldham; his strongly expressed opinions against the practice; the similar views of Montgomery of Dublin, and Matthews Duncan of Edinburgh, are adduced as strong evidence of the unfavorable estimation in which the practice is held by a large number of eminent obstetricians.

The same objections which have been made to the pessaries are also applicable to the uterine sound or catheter (*hysteromètre*), especially when used to replace the uterus in position. According to Depaul, in the vast majority of cases, it is unnecessary even for diagnosis; it may even lead into error, and its use is not exempt from serious dangers. Guéneau de Musay has recorded a case of fatal peritonitis in conse-

quence of passing the uterine sound; three cases of abortion in the early stage of pregnancy, and one case of abortion and death has occurred in the practice of Huguier, Nonat, and Valleix. M. Depaul then passes under a final review the cases of Valleix, Gaussail, Piachaud, Huguier, Nonat, etc., and finds in nearly every one some of the following results from the use of the intra-uterine instruments: hæmorrhages nearly in every case, and sometimes of dangerous amount; uterine and abdominal pains; rigors and fever; syncope and phlegmonous inflammation around the uterus, or in the iliac fossa; metro-peritonitis. A case of enormous phlegmon in the neighborhood of the uterus is given in detail from M. Cazeaux; one of metro-peritonitis from M. Gaube; six cases (one fatal) from M. Nonat, in none of which was the displacement benefited by the treatment, which gave rise to the dangerous complications, pelvic abscesses, metro-peritonitis, etc.; and this enumeration is summed up by the fatal cases of MM. Broca and Cruveilhier, which originated the inquiry before the academy; followed by four fatal cases from the practice of MM. Valliex, Nelaton, and Aran, and the testimony of M. Maisonneuve that similar accidents have occurred in his hands.

Conclusion.—In the majority of females, uterine displacements do not injure the health, and constitute a mere deformity without importance. Where displacements co-exist with inflammation or neuralgia, when the latter affections are cured, the former disappear, or if they persist, are quite innocuous. The small number of simple displacements which occasion inconvenience are easily and safely treated by simple methods without incurring the dangers of the intra-uterine instruments, which, even when they momentarily replace the uterus, fail to fix it in the normal position. The facts adduced to show the efficacy of the mechanical treatment have been wrongly interpreted, and the cures ascribed to it have been owing to other means employed at the same time. The fatal cases observed both in France and England are numerous enough to show the perils of this treatment, and to warn its boldest partisans. In addition to the mortality, the other dangers are of the most alarming kind; pains—sometimes agonizing, hæmorrhages, anæmia and nervous disorders, rigors, fever, syncope, peritonitis, pelvic abscesses, metro-peritonitis, etc., not to mention the cases where the treatment could not be endured. The uterine sound, of great advantage in the diagnosis of certain affections, is very often of no service, and from the great risks attending its use, should be reserved for the exceptional cases which require it; and, finally, that the different intra-uterine pessaries ought to be proscribed, because they are useless, and impotent to produce the good effects expected from them, and they subject the patients to the most serious dangers.

THERAPEUTICS.

Metallic Mercury in Ileus and Obstinate Constipation.—Franceschini has collected 13 cases in which this substance was used in doses varying from 50 to 300 grammes, and concludes:—1. That the internal use of metallic mercury in constipation and ileus has produced good results in overcoming the intestinal obstruction. 2. That the most

obstinate vomiting has always been arrested. 3. That it has never produced local injury of the bowels. 4. That it has never proved injurious to the system, either immediately or remotely.

Lactate of Iron with Antispasmodics in some Neuroses.—Dr. MARCHIANDI has found the following formula very useful in neurosis, dependent upon onanism, gastralgia, epilepsy, etc. ℞ = Valeriante of zinc ʒij; lactate of iron, ʒiss; ext. belladonna, ʒss; ext. valerian q.s.lb. make 60 pills; patient takes two for the first two days, and afterwards gradually increases the dose.

Cubebs in Incontinence of Urine in Infants.—Dr. DRITERS believes that nocturnal incontinence of urine in children is due to atony of the neck of the bladder, in which no remedy has greater power than cubebs. As relapses are frequent, this remedy should be continued several weeks, giving it two or three times daily in large doses, but suited to the age of the patient.

Collodion in Orchitis.—Prof. COSTES relates cases of this disease in which, after covering the scrotum with a mixture of 20 parts of collodion and 6 of ol. ricini, the swelling and pain were quickly relieved, and a rapid and complete cure was obtained.

Gutta Percha.—M. ELLEFSEN recommends a solution of this substance in swelled testicle and fresh wounds, on account of its adhesiveness and making an air-tight covering. He dissolves the gutta percha in bisulphuret of carbon, and spreads the substance over the part affected. It immediately becomes dry and stiff, and forms a thin, tight, and adhesive covering, which loosens at the edges after three or four days, when it must be repeated.

Turpentine Bath.—Dr. MOREAU speaks highly of a bath in turpentine vapor, in catarrhal affections, rheumatism and severe neuralgias. The patient is shut in a room into which the vapor is introduced from without—varying in temperature from 45 to 102 degrees. It produces copious perspiration, which greatly diminishes the temperature of the body.

Creosote in Intermittent Fever.—ZWETKOFF was induced to make a trial of creosote in intermittent fever, (1) On account of its specific influence over the abdominal ganglia of nerves, especially the solar plexus, and (2) On account of its good effects in periodical vomiting. He gave it in doses of from 9 to 15 drops, three times per day in mucilage.

Acne.—CAZENAVE has recently recommended ammoniacal lotions, which form with the fatty matter of the follicles a soluble soap with an ammoniacal base; the hydrochlorate or acetate of ammonia answers equally well.

Chronic Papular Eruptions.—Dr. BURGESS considers them to consist of disorders of the cutaneous nerves, and prescribes, in severe cases of prurigo, strychnia and phosphorus; he has found phosphorated ether, preceded by repeated doses of hyosciamus for a day or two, succeed in allaying obstinate prurities, given internally.

Nitric Acid in Hooping-Cough.—Dr. GIBB, in a recent work on this disease, recommends very highly nitric acid given as follows: ℞. acid nitric. dilut. (Lond. Phar.) ʒxij; tinct. cardam. co. ʒiij; syrup simplex, ℥iijss; aqua, ℥j. ℿ; dose, a dessert spoonful every hour or two to a child two years old.

PART FOURTH.

AMERICAN MEDICAL RETROSPECT.

PRACTICAL MEDICINE.

Powerful Effects from small Quantities of Opium and certain of its Preparations.—Dr. Morland relates a case (*Am. Jour. Med. Sci.*) of poisoning by five grains of opium, and adds the following remarks:—Although the quantity of opium absolutely requisite to suspend vital action must always vary with circumstances, and often, especially, by the habits of the individual, even the quantity taken in this case might well enough have been fatal, under the existing conditions. Christison has recorded a case in which four and a half grains, combined with nine grains of camphor, were fatal in nine hours. Under other circumstances, doubtless, five grains would hardly have caused such very marked effects as have been above related. The prolonged effect of so little, comparatively—the excessive resistance to purgative agents and the long-continued *after* influences (not certainly very usual after recovery from the immediate effects), may seem of sufficient importance to warrant a report of the case.

Dr. Christison opportunely draws attention to the importance of knowing, approximately, the *smallest fatal dose;* for, says he, "in consequence of the dread entertained by many unprofessional persons of this drug, it is currently believed to be much more active than it is in reality, and instances of natural death have been consequently imputed to medicinal doses, taken fortuitously, a short time before (*op. cit.* p. 657). The recording of such powerful effects as are occasionally observed from small quantities even, of opium and its preparations, may also be of service by inducing greater caution in the use thereof, without medical advice and prescription; it may tend to prevent the keeping of such potent remedies in places where mistakes are liable to be made, and where reckless use of the drug is possible.

Grisolle states that "he saw narcotism induced in a lady by the ingestion of three centigrammes of opium;" the *centigramme* being about one-sixth of a grain, this would give only *half a grain* for the quantity taken. The same author adds that twenty centigrammes (grs. 3) have sometimes killed *adults*, and that one or two drops of laudanum may cause the death of a new-born infant. (*Path. Int.*

vol. i. p. 827). Laudanum has been said to become stronger by *being long kept;* Dr. Bigelow, Sen., declares this to be incorrect, at least when dropped without shaking;—if the sediment be stirred, a *very slight* increase of power is possible. Orfila (*Dict. de Médicine*, p. 261) says: "I have seen all the symptoms of an extremely severe (*pénible*) narcotism experienced by two young ladies, after the application of opium plaster to the temples." He does not state the proportion of opium used in preparing the plaster; certainly the amount absorbed must be, comparatively, very small. Taylor (*Medical Jurisprudence*) gives a case as occurring in 1838, of a man, aged 45 years, who died from the effects of ten grains of solid opium which he had swallowed. Also, another instance, in which eight grains proved fatal to a woman, 38 years of age; the quantity, moreover, was taken in two doses. Interval not given.

Many authors refer to the fact of very powerful and alarming effects upon young children by exceedingly small doses. Orfila cites the statement of Sundeling, "that the smallest doses (*les moindres doses*) act with activity in infants; the works of medical authors abound (*sont remplis*) with facts which support this opinion." (*Dict. de Médicine*, en 30 vols. p. 259). Members of this Society have, in former years, reported very marked instances. Dr. Hale related the production of narcotism in a child one month old, by one-twentieth of a grain of acetate of morphia. The same gentleman also stated the occurrence of "alarming" narcotism in a child, from taking one drop of laudanum; and said, moreover, that he had witnessed in another child the same symptoms, after the use of "cough mixtures" containing minute quantities of opium, in some form; and again, by "cough lozenges." Dr. H., from observation of many such instances, concluded that opiates have a greater effect upon children, in proportion to the quantity taken, than does any other medicine. (Vide *Records of Society*, 1843). With a view of presenting the results of several cases of poisoning by preparations of opium, so many as it is possible to collect by search of the volumes of past records, will be grouped in a tabular form below; among them are other examples of strong narcotic action from minute doses, and especially in infantile cases. In consequence of the loss of one volume of the Society's *Records*, any cases therein cannot be cited; one or two are not tabulated, from want of precise data. It is believed that all but two or three are given.

While referring to cases observed in children, one published by Dr. Edward Smith, of London, in the April number of the *Association Medical Journal* (London), may be mentioned. In this instance, one-twentieth of a grain of opium proved fatal to an infant six days old, in eighteen hours after the administration of the dose. Syrup of opium, of the French Pharmacopœia, was the preparation; three-fourths of a grain of crude opium to the ounce of fluid. Artificial respiration was most efficient towards keeping up the action of the heart, which latter was quickened or slackened, according to the use of this means. The usual symptoms of poisoning by opium were induced in about half an hour, coma closing the scene.

In 1838, at a meeting of the Society, Dr. G. C. Shattuck, Jr.,

while referring to the liability of children to be even killed by very small quantities of opium, remarked that, in adults, the habit of drinking ardent spirits may have some effect in diminishing the susceptibility to the action of opium. Dr. S. at that time asked Dr. Bigelow, Sen., what he would consider the minimum fatal dose of opium or laudanum?

Dr. BIGELOW replied that, according to the Edinburgh Dispensatory, it is about four grains of opium, or one hundred to one hundred and twenty drops of laudanum. He added, that he had previously stated to the Society the occurrence of several cases in which an ounce of laudanum had been taken with impunity. (*Records*, 1838).

An important question, in all cases, is the *quality* of the preparation, and as laudanum is perhaps most commonly used for suicidal purposes, we observe, oftenest, variations in the effects of large and of small doses; idiosyncrasy in individuals is a more rare, but doubtless not an infrequent element in the wide difference of the action of the drug.

A case was some years since reported to the Society by Dr. CHARLES E. WARE, in which ʒij of laudanum were taken by an adult female, entire recovery ensuing; she was not in the least narcotised, but, on the contrary, was highly excited; there was spontaneous vomiting. She bought the tincture at two different druggists. It is very possible that an inferior quality of laudanum was dispensed; indeed, with a superior kind, her escape would have been extraordinary.

In the case which forms the basis of this paper, attention may be directed to the profuse *diaphoresis*. This is remarked by Christison in a fatal case examined by him. "The sheets," he says, "were completely soaked, to a considerable distance around the body." This effect of opium has been lately referred to in the Society, when it was administered, in the ordinary doses, frequently repeated, in inflamatory affections; diaphoresis being often obtained very readily, although some have supposed its use would tend, constanly, to constrict the skin.

On the Use of Quinine in the Treatment of Cholera Infantum. By DELASKIE MILLER, M.D., Chicago, Ill.

The almost uniformly intermittent character of the symptoms is a circumstance of practical importance, which affords indications of treatment in other diseases. And although this feature in the symptoms of cholera infantum has been noticed and described by almost all writers upon the subject, still it does not seem to have had any part in furnishing the indications of treatment in this. We would naturally have expected, that when the *important symptoms* so uniformly correspond with those of other intermittent diseases, that the *efficient anti-periodic* remedy would at least have had a trial.

Besides, the intermittent character of the symptoms, there are other and important considerations, which indicate the use of quinine in this disease. It will be borne in mind that in the hasty review which we have just concluded, reference was made to the derangements of the liver and its function. This is what we should expect, when malaria has produced its peculiar influence upon the system. Headland has

advanced the doctrine that in all cases where quinine is indicated, there is a failure in the secretion of healthy bile, and in all cases where there is this failure in the secretion of the bile, quinine is indicated. So there appears to be some connection between these conditions and the effects of quinine.

The bile is formed from the blood, the principal constituents of which are reabsorbed from the surface of the intestines, little more than the coloring matter being excreted from the system. One of these constituents, and a very important one is *Taurine.* M. Leibig has pointed out an important similarity between taurine and the vegetable alkaloids. Of these, caffine, the peculiar principle of coffee, is nearly analogous. From the analysis of these two substances, this author has adduced the following formula: Taurine, C_4 H_7 NO_{10}. Caffine, C_8 HN_2 O_2.

He then shows that one atom of caffine, if added to nine of water and nine of oxygen, will form two atoms of taurine; and it is not at all unreasonable to assume that such a change may, and usually does take place in the system; and thus form a necessary element to the blood in health. This gives us the rationale of the effects of a strong decoction of coffee in the treatment of cholera infantum, as first recommended by Dewees, whose favorable opinion of its beneficial effects all experience sustains.

Taurine is soluble in water, and crystalizable, is chemically analogous to the tonic bitter principles, and contains the same four elements as quinine. If necessary, this similarity could be exchanged for identity, and quinine could be changed into taurine in the blood. If there is one physiological process which is performed with greater facility in the system than any other, it is the process of oxydation; oxygen produces its effects through the external surface, it is admitted largely through the lungs, and it is received into the system with the ingesta. Now the formula for quinine is, C_{20}, H_{12}, NO_2. Adding to this 45 atoms of oxygen, makes one atom of taurine, 16 of carbonic acid and 3 of water. This process it will be seen supplies an important material to the blood, and supports animal heat by giving off carbonic acid, exactly what is necessary in the treatment of cholera infantum.

From what has been said it will be seen that we regard cholera infantum as a Pyntic disease, as do the highest authorities upon the subject. We assume that it partakes of its intermittent type, in consequence of the influence of malaria upon the system. That, then, there is serious derangement of the hepatic function. That in some cases there is simple congestion of the mucous membrane of the stomach and bowels, such as frequently occurs in remittent fever. These circumstances force us to the conclusion that quinine is indicated in the treatment of this disease, and not merely for its tonic influence, but for its anti-periodic effect.

The proper period for administering quinine in the treatment of this disease, is a point of the greatest importance. Of course we could not expect to arrest the diseased action and remove the organic lesion which occur in the advanced stage by the use of quinine, if given even in a full anti-periodic dose. But to secure the full benefit of this

remedy, it should be administered early in the disease, and it will be best tolerated if given during a remission, as in the case with this remedy in remittents generally. The amount necessary to be administered must of course vary with the age of the patient, and to some extent with the violence of the attack. When given, a sufficient quantity should be administered in as short time as possible, in order to promptly arrest the periodicity, and it will be of importance to remember that quinine is best borne, when given in solution, and largely diluted. Should it not be retained in the stomach, we may secure quite as prompt and certain effects by using it endermically, or by enema. When administered in the latter mode, three times the quantity will be required that we would give by the mouth.—*Peninsular Journal*

Catarrhal Fever of Infants. By EDWARD B. STEVENS, M.D.—In different sections of this country, and at various times, a form of disease has appeared, which has been treated of with considerable niceness of detail, under the title of "*Epidemic Meningitis.*" In many respects the affection under consideration bears a striking resemblance to the Epidemic Meningitis, so described. A large proportion, or most of the children I have seen, prove fatal cases of *Catarrhal Fever*, have evidently been hydrocephalic towards that termination. In the progress of the case, there have been convulsions, incessant rocking of the head, peculiar dark-green-paint stools, and stupor,—giving evidence of a certain degree of meningeal inflammation, but none of them have been *purely* or chiefly of that character.

Other features of these cases constitute, almost essentially, simply bronchitis. Thus, running through some portion, or perhaps the greater part of the progress of the case, we shall have cough, mucous rattle, pain, the pulse quick and sharp—often up to 150—and yet the case is *not* bronchitis, simply nor chiefly, for in many respects it is different. Infantile bronchitis is very happily presented in the Treatise on Children, by Dr. Condie; and, indeed, I have not seen any recent work which gives such clear and satisfactory details of the nature and treatment of this, and many other infantile diseases. In nothing, however, do I find what seems to me to be a satisfactory view of *catarrhal fever*, treated as a unit.

Catarrhal disease is supposed to result from some peculiar atmospheric influence: in a simple attack, generally passing under the indefinite name of a "bad cold," sometimes epidemic in a whole neighborhood or country, and often very peculiar in its appearance or type. When the especial cause of catarrh, however, attacks the delicate linings of the nostrils and frontal sinus, there is produced what we call *coryza.* If it passes towards the brain, we have some form of *meningeal disease*, with fever of a low grade, and stupor or convulsions, perhaps. If it passes along the throat and invades the lungs, or makes its first invasion there, we have *bronchitis* or *pneumonia;* or, should it, as it sometimes does, affect the mucous coating of the bowels, it may produce a *catarrhal diarrhœa.* Now, these are all forms of catarrhal disease, well understood by the profession, easily

recognized, and, for the most part, the therapeutic indications are manifest enough.

I am well satisfied, however, that there is a more complex form of catarrh, wherein *all these important regions* become invaded, apparently at the same time, or nearly so, and the vital forces give way with a predestined sureness and rapidity. From an anxious observation of many of these cases, I suppose there is oftentimes a simultaneous attack upon brain membranes, nasal linings, bronchial passages, mucous coatings of the bowels, and the cutaneous surface, and the whole group of consequent symptoms, constituting *proper* "*catarrhal fever.*"

I do not forget that it may be urged with good reason, that whenever disease so impairs the function of respiration as to deteriorate the quality of the blood, the *brain, at once,* gives *apparent* evidence of disease, owing to a want of its accustomed nutriment, and the presence of excessive carbon; hence, stupor and convulsions, without any primary attack upon the brain or its membranes. And yet, we know very well that an aggravated pneumonia or bronchitis may exist in a child or adult, and no such sympathetic condition of the brain appear; so that, while this active sympathy may, and often doubtless does exist, it is not a *necessary* condition. I do not, therefore, regard this as any forcible contradiction of the view I have taken of the real nature of *catarrhal fever.*

The history of one of these little cases is something like this. If called early to see the patient, we will doubtless be told by the mother, that "her child has a *bad cold.*" Upon examination of the case, there is some cough, slight febrile condition of the skin, and increased frequency of the pulse; but if these symptoms are not promptly controlled, or, what is often the case, if attention is not called to them in this state, symptoms of a much more aggravated character come up; there is stupor—frequently convulsions—hot dry skin—and pulse from 140 to 160—cough and mucous rattle, with a labored panting respiration; there is generally evidence of pain, but, with patients so young there is difficulty in ascertaining its extent or character. Other cases present these worse features from the onset of the attack, and leave no evidence of any primary point of the invasion. I have found such cases, I think particularly, portend, for the most part, a fatal issue. Sometimes, after a few days, the mucous rattle would seem to give way, and a pleasant character of easy expectoration follow—the expression of the countenance becoming more intelligent and bright—with a pulse reduced from 160 to 120; and with such a condition of things lead friends and physicians to anticipate a speedy convalescence; but how deceptive these flattering indications prove! for other times, in less than twenty-four hours, and with no apparent cause, stupor and convulsions return—pulse becomes perfectly wild—skin dry and glistening, and death speedily relieves its little suffering victim. In the treatment of these cases, I have sought to secure a healthy state of the secretions, among the first and most important points.

Calomel and *Ipecac,* in small doses, has often had a satisfactory

effect, acting at once as an alterant and diaphoretic; but owing to an obstinate degree of torpidity of the bowels, very often, perhaps *usually* present in these cases, I have found it seemingly impossible to make any impression upon the liver, or secure stools of a healthy appearance. With the *cathartic* I usually direct the *warm bath* and full *counter-irritant* applications. *Musk*, given in the solution directed in U. S. Dispensatory, I have found to exert a good controlling influence on the tendency to convulsion; *cold* to the head; *sinapisms* and *blisters* to stomach, extremities, and back of the neck; torpid bathing, and sponging the surface; stimulants and diaphoretics—all seem so variously called for, that no brief paper would suffice to point out the details of their indication.—*Western Lancet.*

Use of Refrigerants in Dysentery. By J. P. METTAUER, M.D.—I think the fears entertained against the use of refrigerants in dysentery by some of my brethren are groundless, judging from my own trials of them in numerous instances; and I again commend them to the profession, not only as valuable, but safe auxiliary therapeutical means in treating that painful and dangerous disease, notwithstanding the condemnatory dissent of Dr. Upshur, in his paper "Hospital Practice," published in the 14th number of the Virginia *Med.* and *Surg. Jour.*

Surely a large majority of upwards of 300 cases of dysentery treated by myself, in which ice and cold drinks were freely used without injury, is a strong argument against their pernicious operation in that disease as a general effect.

In the first case of dysentery reported in this paper, although considerably advanced when the pounded ice and cold drinks were used, nothing unfavorable to the condition of the patient resulted. On the contrary, he was relieved of a most distressing and alarming symptom by them, to wit: internal burning heat, and in other respects was greatly comforted and benefited; and this was a case in which refrigerants would be most likely to operate prejudically, because of the debility of the patient when they were commenced with.

In the early or inflammatory stage, before the energies of the system have become exhausted, refrigerants would not be likely to depress the vital powers to a dangerous extent, and they would also act beneficially in combating inflammation and its attendant fever—while in the latter or depressing stage, they might increase the depression, and in that way endanger, which is the only mode by which they could possibly produce injurious effects in any disease.

In the second and third cases, refrigerants were used in the early stage, while the symptoms were decidedly acute, and with the effect of appeasing thirst, but without, in the least degree, increasing the tormina. These attacks were promptly relieved by free purging, and only one cathartic was required in each case.

With the fourth case refrigerants were employed also, and without the slightest increase of the tormina, or any other untoward effect following, although the patient had become greatly prostrated, and strong threatenings of mortification had manifested themselves.

The recovery of this patient was mainly due to revellents and the

prompt induction of ptyalism. It is true, great relief was experienced from the laudanum and starch injections, as well as from the narcotic astringent pills and carbon. But, from the first appearance of the salivation, the amelioration of the symptoms was most strikingly displayed. The carbon should never be omitted in the treatment of dysentery, especially when the dejections are fœtid. Besides its power of correcting the fœtor of the contents of the bowels, it also exerts restraining and secerning effects. It is often the case that free and comparatively feculent dejections make their appearance after several doses of carbon have been taken.—*Stethoscope.*

MISCELLANEA.

Fluid Extracts of Messrs Tilden & Co.—We have had recently submitted to us for inspection and use, samples of fluid extracts of Buchu, Rhei, Senna, Cinchona, etc., which, after trial in practice, we have no hesitation in pronouncing reliable and exceedingly worthy of the attention of the profession. The advantages of fluid extracts when properly prepared, does not admit of question; their freedom, more or less, from Alcohol, the smallness of the dose, and the absolute certainty of the medicine, renders them justly deserving of the attention of the profession and of the favor of the public.

OBITUARY.

Death of Dr. W. I. Burnett.—The death of this distinguished physician and naturalist, was noticed in our last. At a meeting of the *Boston Society of Natural History*, July 19, Dr. Wymans, in accordance with a vote passed at a previous meeting, read a notice of the life and writings of Dr. Burnett, who had been a prominent and efficient member of this Society. From this notice which was subsequently published in the *American Journal of Science and Arts*, we glean the following facts:—

Waldo Irving Burnett, was born in the town of Southboro', Mass., July 12, 1828. His father was a physician, and passionately fond of natural science. His love of nature he transmitted to his son, who early began to study natural science and especially insect life, and so absorbed did he become in these pursuits, that his father was obliged to exercise some restraint. He was induced to forego the advantages of a collegiate education, owing to his father's restricted means, but nevertheless by unaided efforts he became proficient in mathematical studies, and mastered the French, Spanish, and German languages, and had made some progress in Swedish. He commenced the study of medicine at the age of sixteen; and his father dying soon after, he was left to maintain himself by personal exertion. He spent most of his studentship with Dr. Joseph Sargent, of Worcester, devoting much attention to entomological pursuits, and graduated in 1849, at the age of 21. He had already distinguished himself as a successful student in the Tremont Medical School, and the Mass. General Hospital, and by being twice the successful competitor for the Boylston prize essay. Soon after graduation, he visited Europe, but owing to the appearance

of symptoms of phthisis, he was compelled to return after an absence of only four months. He now visited the Southern States, where he afterwards passed each successive winter either in Carolina, Georgia, or Florida. To mitigate the progress of his disease he was now forced to travel from place to place, having no permanent home. But while thus unsettled he seems to have accomplished an incredible amount of labor; he was incessantly occupied with his microscope, and his mind was ever on the alert.

In the winter of 1851, he delivered at the Medical College, Ga., a course of lectures on microscopical anatomy. In the summer of 1852, he prepared the principal work of his life, the essay which received the prize of the *American Medical Association.* He became an active member of the *Boston Society of Natural History* while a student, and in 1851, he was elected a member of the American Academy of Arts and Sciences,—one of the youngest members ever admitted into that body. His contributions to different scientific bodies and journals were very numerous, and on a great variety of subjects. He became one of the associate editors of the *American Journal of Science and Art*, and was accustomed to contribute *reviews and records in Anatomy* and physiology, consisting of a critical analysis of the periodical literature of these subjects. While actively engaged in these various pursuits, Dr. Burnett found time to undertake the translation of Siebold and Stannius' Comparative Anatomy, the first volume of which has but recently appeared, and bears internal evidence in the compendious notes of its editor, of great labor and research. He was engaged upon the second volume at the time of his death, and was anxious to see its completion.

The final close of Dr. Burnett's life is thus drawn by his biographer :—

"He had been long accustomed to look upon death and to talk about it as an event that he must meet at an early period. But death, if not imminent, is something that all look forward to calmly and without emotion, and when we speak of it we are not sure that we give utterance to our most solemn feelings and convictions. But there is one moment when, if ever on earth, the heart, if it opens itself, does so without disguise—if it give utterance, does so without reserve: it is that dread moment when death approaches so near that there is no alternative but to look upon earthly life as finished, its account made up; and when all that remains for the mind to dwell upon is the dissolution of the body and the realization of another life. A few days before he died, our late associate returned after a winter's absence, to the home of his family, his bodily health exhausted, his energies prostrate. At first he entertained the hope that as before, rest and quiet might restore him partially at least to his usual health, and that he might have yet another opportunity of continuing those labors which he so fondly cherished; but his fast declining strength, the anxiety of those around him, the announcement of his physician and his own quick perceptions, soon told that life was drawing to a close, and that for him the great moment was near. In all this he was calm and serene, conversed on the approaching separation without faltering, gave

utterance to expressions of deep affection to those who were bound to him by the ties of kin, uttered his prayer for forgiveness, and expressed the solemn conviction, which now rose paramount to every other, that if there yet remained much for him to live for, there was yet far more to die for. On Saturday morning, July 1st, a few days before the completion of his twenty-sixth year, he died."

Death of Prof. James Webster, M.D.—Dr. Webster died in the City of Louisville, Ky., July 19th, 1854, of disease of the heart, in the 51st year of his age. From a biographical sketch in the *Boston Med. and Surg. Journal* we learn that he was born at Washington, Lancashire, Eng., on the 26th of Dec., 1803. At an early age he emigrated to this country with his parents, and settled in Philadelphia, where his father became an eminent bookseller and publisher, and established the Medical Recorder, of which his son became afterwards one of the editors. Dr. Webster was originally destined for the bar, but his inclination soon led him to the study of medicine, in which anatomy soon became his favorite pursuit. He pursued his studies in Baltimore and Philadelphia, and after attending three full courses of lectures, two of which were in the University of Pensylvania, he graduated at the latter in March, 1824, at the age of 20 years. Dr. W. was a private student of the late Dr. John D. Godman and succeeded him, on his removal to New York, as private teacher of anatomy.

As a successful teacher of anatomy, Dr. Webster had few if any superiors in this country. He was clear, precise, and accurate, and always enjoyed a high degree of popularity with his students. His private classes in Philadelphia were crowded, and he succeeded in imparting to his students the same enthusiasm which he himself felt in the study of his favorite science.

About the year 1835 or, 36, he removed to the city of New York, where he soon acquired considerable reputation as an operative surgeon, and especially in the treatment of diseases of the eye and ear. In 1842 he was appointed Professor of Anatomy in Geneva Medical College, and took up his residence in the city of Rochester—where, in a short time, he became one of the most prominent surgeons in western New-York. In 1849 he was elected to the Chair of Anatomy in the University of Buffalo, where he continued to lecture until 1852, when he resigned from ill health.

Dr. Webster was a man of superior native abilities, and of extensive acquirements in anatomical science. He was exceedingly fluent and animated as a teacher, and never failed to command the whole attention of his class. His mode of teaching was that pursued by the late Dr. Godman, viz., to perform all the dissections before the class, demonstrating all the parts as he went along. Such was his great skill and facility in dissecting, that he usually went over more ground in a single lecture, than when the parts are previously dissected. The advantages attending this mode of teaching are sufficiently obvious.

As a surgeon, Dr. Webster was cautious, though bold and prompt enough when the occasion demanded. He was a neat operator, gentle

and kind in his deportment to his patients, and remarkably successful. As a lithotomist and an oculist, he was one of the most skilful operators in western New York, and performed a vast number of operations of every kind.

Dr. W. was a man of fine social qualities, open, frank, and gentlemanly in his manners, and generally conciliating in his deportment. He was generous to a fault, and with some failings, possessed equally great virtues. The thousands of medical men who have enjoyed the benefit of his teachings will hear of his death with regret.

Death of Samuel W. Moore, M.D.—Died in this city, on the 26th day of August, Dr. S. W. Moore, aged 68 years. The following biography is from the pen of Prof. C. R. Gilman, and is copied from the *Medical Times* for October:—Samuel W. Moore was born in New York city, 11th October, 1786, the son of Dr. William Moore, long one of our most highly-esteemed and successful practitioners. From early childhood his constitution was frail, and the delicacy of his bodily organization was equaled by the gentleness of his temper, and the kindliness of his feelings.

Dr. Moore received his early intellectual training from Mr. Samuel Rudd, and entered Columbia College at the age of sixteen years, in 1802. His connection with Columbia College was probably rendered more pleasant and profitable by the fact that his uncle, Benjamin Moore, D.D., Bishop of New York, was then president of the institution. Several of his classmates still survive among us, and we noticed two of them among the sorrowing friends who assembled at his funeral. He graduated in regular course in 1806, and immediately commenced the study of medicine, under the guidance of his father, attending lectures in the medical department of Columbia College; in which Dr. Wright Post then taught Anatomy, Dr. Richard Bailey, Surgery, Dr. Hammersley, Theory and Practice of Physic, Dr. J. R. B. Rodgers, Midwifery, and Dr. David Hosack, Botany. From those distinguished teachers he received, in 1810, the degree of Doctor of Medicine, and immediately entered into full practice, taking a share of the large business of his father. This arrangement continued until 1824, when the elder Dr. Moore died, having practised physic forty-four years. His son now took his place among the prominent physicians of New York, with a large circle of patients, and a still larger one of friends; for such was the unaffected kindness of his heart, and such the graceful amenity of his manners, that few became his patients without remaining ever his attached friends. In 1824 he was appointed one of the physicians of the New-York Hospital; for this situation he had moral qualifications which are more important, and alas! more rare, than professional skill. His conscientiousness insured to the poorest and most degraded of his pauper patients a full measure of his attention; while his amiability and benevolence made him the friend of poor and rich alike. In 1828, he was compelled, by failing health, to retire from a position which he was so well fitted to adorn.

In 1828, Dr. Moore was appointed Trustee of the College of Physicians and Surgeons, and continued, from that period to the end of his life to take an earnest interest in the prosperity of that institution.

At the time of his death, he was the senior member of the board. In 1849, on the reappearance of the cholera, Dr. Moore, in conjunction with his friends Dr. Joseph M. Smith and Dr. John B. Beck, was appointed medical counsellors to the Committee of the Sanitary Board of Health. To the duties of this position, made more onerous by the fact that his associate Dr. Beck was soon, by the state of his health, disabled from taking his share of them, Dr. Moore devoted all his energies; and the Report published by the Committee affords most satisfactory evidence of the ability and faithfulness with which this important public duty was performed. For several years, the health of Dr. Moore, never very robust, had been gradually declining, and he felt himself obliged to contract the sphere of his professional labor. Still he was unwilling entirely to give up the practice of his profession, and very many of his old friends were still more unwilling to be given up. In March last he met with an accident, which, though not immediately followed by grave symptoms, caused, as afterwards appeared, effusion of blood into the cavity of the arachnoid. He continued to visit a few friends, and his venerable form was still seen at church, till in July, paralysis very gradually supervened, and then

"Gently as an infant to his sleep,
Went he to death."

Death of Prof. J. A. Swett.—Died in this city, Sept. 18th, John Appleton Swett, A.M., M.D., Professor of the Practice of Medicine in the Medical Department of the University of the city of New York, aged 46 years, of Bright's disease. "Dr. Swett was born in Boston, Mass., in December 1808. He received his academical education at the University of Cambridge, Mass., having entered that institution in 1824, after a thorough classical training at the Latin School of Boston, and graduated with honor in 1828. He then at once commenced the study of medicine in the office of Dr. Jacob Bigelow, of Boston, and at the end of three years, received the degree of Doctor of Medicine. In the selection of a place for the practice of his profession, he visited New York in the fall of 1831, and soon decided to make this city the scene of his future labors. In this decision he was not sustained by the wishes of his parents, then residing in Boston, which made the early years of his professional life a period of struggle and of no little anxiety. His zeal for study soon led him to seek other means of improvement than those afforded by the slow growth of private practice, and he attached himself to the New York Dispensary, the oldest and most extensive of the charities of our city. Years of toil and industrious application in this great field for the study of disease in all its forms, afforded by the large number of patients at the institution, yielded rich returns, and probably both gave a direction to his future course, and laid the foundation for the reputation and success with which he was afterwards rewarded. He then commenced especial examination of the subject of diseases of the heart and lungs, a department with which his name soon became associated, and upon which his labors threw so much light.

In the winter of 1833–34, he was one of a small number who united to form an association for professional improvement at the New York

Dispensary, which, after some changes, assumed the form and name of the society now known as the New York Medical and Surgical Society. With this association, his feelings and sympathies were always closely identified, and he contributed much to the pleasure and profit of its meetings. The members of the society, now numbering between twenty and thirty, all actively engaged in professional duties, attended as mourners at his funeral.

In 1834, he superintended the publication in this city of "Hall on Diagnosis," a second edition of which, with notes, he published in 1839. In July, 1835, he visited Europe for professional improvement, and diligently availed himself of the advantages afforded by a residence in Paris, returning home after an absence of eighteen months, and entering with renewed zeal upon his course of study and practice.

In the Spring of 1838, he commenced his career as a lecturer, at the Broome Street School of Medicine, an association formed by a few of the junior members of the profession, for the purpose of giving instruction on special branches of medicine and surgery, selecting for his department his favorite subject of diseases of the heart and lungs, with which his reputation became afterwards so intimately connected. He subsequently lectured on the same subject, with great increase of favor, in the Spring course of lectures at the College of Physicians and surgeons, in Crosby street. The report of his lectures in the New York Lancet at that time, did much to extend his fame as a teacher and a lecturer, beyond the limits of the city as well as at home.

In 1839, he and Dr. John Watson were associated as editors of the New York Journal of Med. and Surg., which was conducted by them jointly, with ability, for two years, when the enterprise was abandoned, after the publication of four valuable volumes.

In the year 1842, Dr. Swett was elected one of the Physicians of the New York Hospital, with a unanimity highly flattering to him, and with a hearty response on the part of the profession, as to his peculiar fitness for the station. This was the scene of his subsequent and of his latest professional labors, and he rendered it attractive to students, as well as to practitioners, by his accurate pathological demonstrations, and his clear and judicious clinical instruction. His devotion to his duties in connection with that institution, and especially during the last spring, when exhausted by the labors of the winter, doubtless tended to hasten the event which we are now called upon to mourn.

In 1852 Dr. Swett published a revised and extended edition of the course of Lectures delivered in 1838, in a separate volume under the title of "*A Treatise on the Diseases of the Chest*," an octavo volume of 585 pages, with two plates on steel. It is upon this work that his reputation as an author will rest for years to come.

"In the summer of 1853, Dr. S. was chosen Professor of the Institutes and Practice of Medicine in the Medical department of the University of this city, and lectured during the past season in that institution with great acceptance. This appointment enabled him to realize the hopes in which he had long indulged, and rendered available for the benefit of others the valuable acquirements of long years of devoted study.

The post-mortem examination confirmed the diagnosis of his disease made during life. Both kidneys were found in an advanced state of Bright's disease, and the liver in the second stage of cirrhosis. All the other organs were sound.

In the death of Dr. Swett, we feel that the profession has sustained no ordinary loss. An honorable man, and an accomplished physician, he had secured the confidence and commanded the respect of his brethren to a degree rarely met with, and it is no disparagement to those whom he has left behind, to say that as a teacher and clinical lecturer, he had no superior among us.—*Medical Times.*

Resolutions of the Medical Faculty of the University of New-York.

At a meeting of the Medical Faculty of the University of the City of New-York, held Sept. 19, 1854, the death of PROFESSOR SWETT having been announced by the President, the following preamble and resolutions were adopted.

WHEREAS, It has pleased Almighty God to remove from among us our late Colleague Professor John A. Swett:

Resolved, That the members of the Faculty have heard, with profound regret, of t he decease of their late Associate.

Resolved, That, in view of the accurate and extensive scientific acquirements, the professional sagacity and skill, the aptitude to teach and the gentlemanly and honorable deportment of the deceased, and the pleasant relations which have uniformly subsisted between him and his Colleagues, the members of the Faculty regard his death as a severe loss to the University, the Profession, and the Community.

Resolved, That, in honor of his memory, the members of the Faculty will wear crape on the left arm for 30 days.

Resolved, That the members of the Faculty will attend the funeral of their late Colleague.

Resolved, That the exercises at the University Medical College be suspended until after the funeral of the deceased.

Resolved, That a copy of the foregoing preamble and resolutions be sent to his Widow, with the sincere condolence of the Medical Faculty.

Resolutions of the New York Medical and Surgical Society.

At a special meeting of the New York Medical and Surgical Society, held on the evening of Sept. 19th, 1854, the following resolutions, offered by Dr. E. L. Beadle, were unanimously adopted:—

Resolved, That we are deeply affected by the dispensation of Divine Providence which has, by death, removed from our companionship John A. Swett M.D., one of the founders of this Society; a member who was not only distinguished for his clearness of perception, soundness of judgment, devotion to, and eminent attainments in, his profession, but was endeared to us all by his urbanity of manner, honorable deportment, truthful character, and ardent friendship.

Resolved, That as an expression of our feelings, we will, as a body, attend his funeral, and will wear the usual badge of mourning on the occasion.

Resolved, That we tender to his bereaved wife and friends our heartfelt sympathies.

Resolved, That a copy of these resolutions be sent to the widow of the deceased.

ALFRED C. POST, M.D., *President.*

CHAS. M. ALLIN, M.D., *Secretary.*

DEATH OF VALENTINE MOTT, JR. M.D.—Died in New-Orleans on the 20th of September, of yellow fever, Dr. Valentine Mott, Jr. aged 33 years. The deceased was son of Prof. Mott of this city.

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ERRATA.

Page 18, lines 3, read tulàres for 'lulares'
" " " 4, read tule for 'lule'
Page 20, line 7, read *tulâres* for '*lulares*'
" 23, " 17, " " " "
Page 33, " 21, read inference for "influence"
Page 34, " 8, from bottom for "amply" read simply
Page 39, " 5, for "53" read 52
Page 179, " 8, from bottom for "assist" read arrest.
Page 309, under head of total mortality, for Aug. 26, for "827" read 832, and for the "total 8166" read 8171.
Page 341, line 3, for "melopoplasty" read metopoplasty.